

COLUMN

MAINE GARDENER

Of rain and runoff: Home gardeners may want to embrace new practices

TOM ATWELL

September 30, 2007

The Maine Board of Pesticides Control wants to make sure that when lawn-care companies put fertilizer on your lawn, it stays there and doesn't run off into any nearby water.

At a meeting Friday, the board is expected to approve a list of best-management-practices -- which are a step below actual regulations -- to control applicators.

"This is really a reaction to hundreds of applications a few companies did in the pouring rain, during a week when it rained 7 inches," said Gary Fish, an environmental specialist with the board.

With it raining that hard and the soil already saturated, all of the fertilizer and pesticides washed away, ending up in nearby bodies of water.

"The main way we found out about this," Fish said, "is that a couple of people who work for TruGreen Chemlawn called me and said, 'It seems like we shouldn't be doing this,' and I agreed."

As a result, TruGreen Chemlawn was fined \$7,500, and another company with fewer violations, Lawn Dog, was fined \$400.

Although the best-management practices apply to commercial applicators, home gardeners should be interested for a couple of reasons. First, if they do the work themselves instead of hiring it, they will have some guidelines. And if homeowners hire professionals, they will know that the contractors are doing the right thing.

Fish said the rules on weed and insect killers would be fairly complicated for the laymen, involving using the best possible product for the specific problem.

But the basics are to use spot treatments where there is a problem rather than treating the entire lawn, using the least toxic product possible to do the job and using a product that is selective in what it kills.

The board is developing a list of all of the turf products that are likely to be used by commercial applicators and putting them in a spreadsheet so they can compare one product with another, and choose the one that has the least potential for leaching or runoff and the least damage to people and other organisms that are not being targeted. Specifically, the proposal says that it is the intent to protect bees.

"The guides on fertilizer are some of the soundest of all," Fish said, "and we are hoping that people will look at them and decide they make a lot of sense. We know that fertilizer, especially nitrogen, is moving an awful lot from where it is put down. That is a concern for Friends of Casco Bay because nitrogen is what causes algae problems in the ocean."

Fish said the fertilizer rules are quite similar to the YardScaping program that promotes environmentally friendly landscapes. And while this document is for professionals, the board intends to work on one for homeowners, as well.

The proposal recommends that people use slow-release fertilizers, and to use no more than 1 pound of nitrogen per 1,000 square feet. If using quick-release fertilizer, use no more than a half a pound of nitrogen per 1,000 square feet.

People are not supposed to apply phosphorous, which causes algae to develop in fresh-water lakes and ponds, unless a soil test says phosphorous is specifically needed, or if starting a new lawn from seed.

Fertilizer and pesticides should not be applied if the soil is saturated or there is standing water, or if the ground is frozen, until the grass naturally greens up in the spring, normally when the soil is 50 to 55 degrees.

A big part of the draft is on customer and neighbor relations, involving notification of when applications will occur and what will be applied. The draft also includes guidelines on initial assessment of the site, procedures that should be taken near wells and streams and how the products should be applied.

The entire proposal can be read at http://www.maine.gov/agriculture/pesticides/turf_bmps/index.htm

Comments can be made before Friday's meeting by calling 287-2731 or e-mailing pesticides@maine.gov.

TOM'S TIP

WHILE THE STATE'S best-management practices will make using chemicals safer, there are those who oppose using nonorganic treatments at all.

PAUL TUKEY, A Mainer and founder of People Places & Plants magazine, has had a busy year since his book "The Organic Lawn Care Manual" was published by Storey last winter. He has traveled to 32 states promoting organic lawn care and been written up in many publications, including the Philadelphia Inquirer and Washington Post just this month.

THE INQUIRER REPORTED: "With the National Park Service's blessing, Tukey's crew will start to rip up, replant, and organically maintain one-third of the lawns at the National Mall in Washington. It's a two-year experiment. 'We're very confident it'll go well,' Tukey said."

IF YOU PREFER organic, check out Tukey's book.

GARDEN PLANNER

PARTS OF MAINE have had their first frost. If it hasn't hit your garden by the time this column appears, it will be coming soon.

It is the time to do a serious cutback of the perennials and annuals in your garden.

IF YOU WANT to have amaryllis and similar bulbs in bloom in time for the Christmas season, you should plant it now.

GET READY FOR your 2008 vegetable garden. Plant your garlic now.

Tom Atwell can be contacted at 791-6362 or see his blog at: www.pressherald.com

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Reader comments

Gary Fish of Wayne, ME

Oct 1, 2007 11:13 AM

If you want to talk to your neighbor about minimizing their use of lawn care chemicals try going to the Maine YardScaping Partnership web site www.yardscaping.org. We have tools there that you can download to help you approach your neighbor, or just contact us at yardscaping@maine.gov

Citizen of South Portland, ME

Sep 30, 2007 8:57 AM

How does one gently ask one's neighbors to change practices that result in unhealthy runoff? I live maybe 1000 yards from the water (though not the beach) in South Portland, and I am the only person on my street who doesn't hire a chemical company for their lawn. We are uphill from the water and I know where those chemicals are going. But my neighbors hate my yard because it's *not* chemicalized -- and is the source of dandelions -- so I don't have a lot of credibility when making any yard-related requests. Ideas?

Pest control businesses becoming chem-free

Maine is a leader in the effort to discourage pesticide use in homes, schools and workplaces.

By JOHN RICHARDSON, Staff Writer

October 3, 2007

ARUNDEL —When Ted St. Amand's father ran the family's pest extermination business, he typically showed up at jobs with a spray can full of pesticide.

"When you came in with a can, you meant business," St. Amand said.



Jill Brady/Staff Photographer

Ted St. Amand, owner of Atlantic Pest Solutions in Arundel, demonstrates how a CDC light trap is used to attract mosquitoes.



Jill Brady/Staff Photographer

Environmentally friendly products containing ingredients such as garlic juice, rosemary, mint and vanilla are all part of nonchemical pest control.

The pest control business has changed dramatically in the last decade, and St. Amand's company has shed the "man-with-a-can" image.

Atlantic Pest Solutions now is more likely to patch up holes in a home to keep mice and bats out, or install a special fan to keep flies out of a restaurant. Pesticide use is limited, and may even involve something like garlic juice or rosemary oil to repel mosquitoes.

Regulators and environmental advocates say the extermination industry as a whole still has a way to go to reduce its use of hazardous chemicals. St. Amand's company, however, is an example of how far some have come.

Maine also is considered a policy leader in the trend. The state has some of the most aggressive rules in the nation when it comes to discouraging pesticide use in homes, businesses and schools, according to a recent national study.

Large-scale agricultural use of pesticides has been scrutinized and regulated for 40 years. But the use of pesticides in homes and businesses has undergone a much more recent transition.

"A lot of people will go out of their way to buy organic food and then come home and spray the same chemical around their home," said Jonathan Kaplan, a senior policy analyst with the Natural Resources Defense Council, a national advocacy group. "Pesticide use (in homes and offices) remains a significant risk to public health and the environment."

That pesticide use increases the risk of a variety of cancers, and is contaminating waterways that are nowhere near farms, he said.

When St. Amand took over the business from his father in 1984, the standard industry approach was relatively straightforward. Kill the pests and, if more show up, come back and do it again.

"We didn't really solve the problems; we really kind of decimated a population," he said.

St. Amand gradually became a problem solver, an approach that works better over the long term, he said. He sees his job now as a kind of investigator who studies a pest problem and then creates a strategy to manage it, using chemicals as a last resort. It's an approach known in the business as Integrated Pest Management.

St. Amand's company now has a lab to identify various insects, such as 45 species of mosquitoes. Knowing what species he's dealing with can lead him to their breeding ground.

His first weapon of choice is often a trap or a glue board that catches pests, so he can figure out what he's up against and how best to attack it.

For example, a standard approach to bats in the attic these days is to drape netting over a home so that the bats can fly out but not get back in. Once the attic is clear, all potential entries are sealed.

And consider how St. Amand's company helped a restaurant with flies, a common problem for the industry. He installed a light that traps flies and an "air curtain," or blower, that keeps flies from entering through an open doorway.

He also had the owner move a trash bin away from the building and used a modern chemical pesticide in it to keep flies from breeding there.

Another big change in the business is the nature of the pesticides that are available, said Richard Stevenson Jr., technical director of Brunswick-based Modern Pest Services. Chemicals now have more targeted effects so they kill only the pests, and they are made to be less persistent in the environment, he said.

Stevenson's family-run company is the largest exterminator in Maine and considers itself a leader in the trend. "It's catching on, but not all companies are practicing yet," he said.

State policies are helping to fuel the change. A study released in July by Beyond Pesticides, a group that is working to reduce pesticide use, concluded that Maine is one of the most progressive states for promoting nonchemical pest control.

Maine was one of the first states, for example, to require schools, landlords and employers to avoid using pesticides when possible, and to notify those who may be exposed before applying the chemicals.

Some exterminators in Maine are not yet committed to the new approach, said Gary Fish, manager of pesticide programs for the Maine Board of Pesticides Control. "They're not spraying the same old-fashioned way, but they're not taking the time with the customers and not doing as thorough initial surveys."

"Depending on the commitment of the individual operator or company you can get to using pesticides pretty quickly," said Jay Feldman, executive director of Beyond Pesticides. "It still requires an educated consumer base. There are so many different definitions out there of Integrated Pest Management."

The Integrated Pest Management Institute of North America has introduced a program called Green Shield Certified, which uses a detailed audit to identify companies that use approved pesticides, and use them as a last resort. Seven companies nationwide have so far been Green Shield Certified, and one of them is Atlantic Green Pest Solutions, a new division of St. Amand's Arundel-based company.

St. Amand said demand for nonchemical pest control has grown steadily in recent years as consumers have learned more, particularly from the Internet. His company has grown from one man to 45 employees, and it recently opened a branch office in Brunswick.

But some customers are old-fashioned. And, according to Fish, they expect their exterminator to show up with a can.

"There still are many customers out there that don't want to pay for anything unless they spray something," he said.

Staff Writer John Richardson can be contacted at 791-6324 or at: jrichardson@pressherald.com



Letter to the Editor

Dear Editor,

I read with great interest your article, "Toxins in Casco Bay," which appeared in the summer issue of the Gulf of Maine Times. I wanted to add that Friends of Casco Bay has also been running periodic tests of stormwater entering the bay and results have shown detectable levels of multiple herbicides and at least one insecticide and fungicide — chemicals used by homeowners and commercial applicators for lawn and yard care. Some of the concentrations found in these samples have exceeded aquatic life criteria and may be adversely impacting aquatic invertebrates and fish species.

With these test results in mind and the fact that distribution and use of lawn and garden pesticides has increased dramatically in Maine in recent years (more than three million pounds in 2004, mostly weed and feed products for lawns), Friends of Casco Bay and the Maine Board of Pesticides Control created first the BayScaper program for Casco Bay and then the statewide initiative, [YardScaping](#). These are essentially public education/outreach programs with the message that beautiful lawns, gardens and landscapes can be created through ecologically based practices which minimize reliance on water, fertilizer and pesticides.

The centerpiece of our current YardScaping efforts is the Back Cove YardScaping Demonstration Project — the Back Cove being an integral part of Casco Bay. The city of Portland, one of the 30 or so YardScaping partners, donated about three acres (1.2 hectares) of land along the cove to develop a site that will demonstrate the basic YardScaping principles for both the general public and professionals. It's also likely that the site will be the base for a training program for landscapers and others developing landscapes. The first phase of the project is almost complete: The Maine Conservation Corps, City of Portland Parks & Recreation Department and Maine Master Gardeners have constructed two-thirds of the 1,000-foot-long, seven-foot-wide (305-meter long, two-meter-wide) walking path that will wind through the gardens. The path is linked at both ends and through two spurs to the existing Back Cove Trail, which is very popular with hikers and bikers.

The project Web site is: <http://www.yardscaping.org/demo/portland.htm>.

Thank you for your interest!

Paul Schlein
Public Information Officer
Maine Board of Pesticides Control
Augusta, Maine
<http://www.thinkfirstspraylast.org/>

Green ideas go under microscope

Proposals for using potatoes to make plastics and building a biorefinery in Maine will be examined at an Oct. 26 conference.

By TUX TURKEL, Staff Writer October 16, 2007

It's not apparent, but the plastic bottles of Noble Juice at Wal-Mart and local supermarkets are made from corn, not petroleum. So is the resin liner inside a Green Mountain Coffee Roasters takeout cup and the plastic iced coffee cups used by Coffee By Design in Portland.

This bioplastic comes from a facility in Nebraska owned by NatureWorks LLC, a subsidiary of international food and farming giant Cargill. It's the country's first manufacturer to harvest the starch stored in plant sugars and create a clear plastic, called polylactic acid, or PLA.

What would it take to build a similar facility in Maine that would make PLA from potatoes?



Staff Illustration/Alfred Wood



MaineGreenChemistry.com

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TO LEARN MORE
FOR INFORMATION about the upcoming
conference, "Growing Maine's Green Economy:
Better Living Through Green Chemistry," go
to: www.mainechemistry.com

That question will be a prime focus during a conference on Oct. 26 at the University of Southern Maine in Portland. Billed as a summit on green chemistry and bio-based manufacturing in Maine, the session will bring together researchers, farmers and companies interested in developing this technology here.

"It's the beginning of a revolution, because we know we have to replace petroleum," said Michael Belliveau, executive director of the Environmental Health Policy Center and an organizer of the conference.

Maine, with its forest and agricultural resources, may be well-positioned to participate in this revolution. Making plastic from potatoes could be an early step, Belliveau said, because the technology already exists. What remains unanswered is whether it makes economic sense to build a commercial-scale project here in the near future, and whether it can attract the needed public and private money.

Making plastic from potatoes is just one avenue of exploration in Maine's quest to be a player in bioenergy.

A group based in Rumford, the Fractionation Development Center, is trying to attract money and research to build a \$45 million biorefinery to convert wood biomass into oil and electricity. Organizers have been making presentations in possible host communities, including Millinocket.

The University of Maine last year won a \$6.9 million National Science Foundation grant to help create an integrated forest biorefinery. The technology would extract chemicals from wood chips at pulp and lumber mills and use them to make fuel ethanol, plastic or other products now derived from petroleum.

Some of the participants in this effort are wrapping up a two-day conference today in South Portland. The event was held to link university researchers and small businesses interested in environmental and alternative energy issues.

The potatoes-to-plastic effort got a boost last summer, following a preliminary study by the Margaret Chase Smith Policy Center at the University of Maine.

The work was done for Interface Fabric Inc., a commercial textile manufacturer with factories in Guilford and Dover-Foxcroft. Interface has a

strong commitment to sustainable manufacturing, currently making products from recycled plastic, reclaimed wool and bio-based fibers. Interface wants to know whether it makes economic sense to use Maine potatoes as a source of PLA for bio-based fabrics. The company figures it needs 13 million pounds of PLA a year.

The study found that the cost of processing potatoes for PLA would be similar to using corn. The feedstock could come solely from waste and below-market-grade potatoes, the study determined.

But because this plant would be the first to make PLA from potato starch, many questions remain unanswered. It's unclear how the waste potatoes would be collected. It's also possible that certain varieties can be grown using fewer pesticides and fertilizer, making the venture more profitable for growers and better for the environment. And while a plant would likely be located near the potato fields of Aroostook County, placing it next to a factory that can use waste heat or produce electricity might improve the economics.

"We really feel this research is promising, but you've got to do the work," said Jonathan Rubin, an environmental economist at the Smith center.

Interface and the university now are trying to win a \$1 million federal grant to look at these and other issues. The partners are awaiting word on a pre-application request from the U.S. Department of Agriculture.

If the economics line up and the project can attract investors, Rubin and others estimate a potatoes-to-plastic plant could be built in Maine within five years. Underlying that assumption is petroleum prices staying high.

"Oil at \$80 a barrel is a lot of incentive," Rubin said.

Besides Interface, other companies with Maine ties may be interested in bioplastics for their products. The trick will be bringing cost and performance in line with petroleum-based plastic or other alternatives.

Tom's of Maine, the natural care products company, tested a PLA-based bottle for mouthwash. It leaked, according to Chris Chappell, the company's consumer care director.

Tom's experience underscores a challenge for bio-based plastics. Cornstarch-based plastic containers and flatware are available on the market, for instance, but they don't hold up at temperatures above 135 degrees.

Tom's wants to find a bioplastic that works for its deodorants, liquid soaps and floss containers. The company already uses packaging that's highly recyclable, but it is interested enough in the potential of Maine potatoes to co-sponsor the green chemistry conference.

"We want to be responsible with our packaging," Chappell said. "We've done what we can, but as the technology evolves, we want to do more."

Other Maine companies that could help support a local bioplastics industry are Sagoma Technologies of Biddeford, which makes CD cases and other items, and Rynel Inc. of Wiscasset, which makes polyurethane foam products for medical and personal care markets. Nestle Waters North America, which sells the Poland Spring brand, also is exploring bio-based plastic for the 3 billion bottles it fills each year in Maine, Belliveau said.

Although potato production and PLA processing is centered in northern Maine, the green chemistry conference is being held in Portland, Belliveau said, to reach out to southern Maine's business community. Any project, he said, will need political support and venture capital to get off the ground.

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Insecticide Use in Bt and Non-Bt Field Corn in the Western Corn Belt: As Reported by Crop Consultants in a Mail Survey

Thomas E. Hunt, Laurent L. Buschman,
Phillip E. Sloderbeck

ABSTRACT: The use of foliar insecticides to control arthropod pests in corn is reported to be more extensive in the western high plains (western Kansas and Nebraska and bordering areas) than in the Midwest corn belt. Recently, the extent of insecticide use has become an important matter because the U.S. Environmental Protection Agency (EPA) has implemented the high-dose-refuge strategy for insect resistance management (IRM) to delay the development of resistance to transgenic corn in the European corn borer, *Ostrinia nubilalis* (Hübner). The use of foliar insecticide applications could reduce the effectiveness of the refuge for the IRM strategy. To get better data on this matter, we developed a crop consultant survey to collect information on insecticide use on Bt and non-Bt corn in Kansas and Nebraska. Data were compiled according to three agronomic regions within these two states based on different agricultural practices and insect complexes (southwest, west, and east). The consultants reported that during the early-whorl stage, relatively few corn acres were treated with foliar insecticides ($\leq 14.2\%$) in any of the three regions, and the trends suggested that non-Bt corn received slightly more insecticide than did Bt corn. The consultants also reported that during late-whorl stage, the dryland corn acres also received fewer foliar insecticide treatments ($\leq 12.4\%$) and again, non-Bt corn received slightly more treatment than did Bt corn. However, the consultants reported that during the late-whorl stage, irrigated corn received considerable foliar insecticide treatment, particularly in the southwest region: 66% in the non-Bt corn and 40% in the Bt corn. They also reported that 34% and 31% of these treated acreages received two treatments for pests, such as southwestern corn borer, *Diatraea grandiosella* Dyar, and spider mites, Tetranychidae (which are not as important in the other regions), in addition to treatments for European corn borers and western corn rootworm, *Diabrotica virgifera virgifera* LeConte (which are present in all three regions). The difference in insecticide use between non-Bt and Bt corn was 26, 6, and 19% in the southwest, west, and east regions (respectively) during 2002, and 20, 12, and 12% in the respective regions during the previous 5 yr. This level of treatment differential between Bt and non-Bt could potentially reduce the time to resistance in the European corn borer from 30 yr to 18 yr based on modeling projections with similar assumptions. These data also document that the use

of insecticides is lower in Bt corn than in non-Bt corn, making this one of the first surveys to document a reduction in the use of foliar insecticides in Bt corn as compared with non-Bt corn.

KENNEBEC JOURNAL

New study on the effects of Bt corn

By [*Kennebec Journal*](#) Staff report November 01, 2007 08:53 AM

AUGUSTA—As the Maine Board of Pesticides Controls plans for a public hearing on rules to regulate the use of genetically modified Bt corn, new information about its effects on the environment is emerging.

A new study, funded by the National Science Foundation, indicates that Bt corn may damage the ecology of streams draining Bt corn fields in ways that have not been previously considered by regulators.

The Board of Pesticides will be accepting written comments on their proposed rules for Bt corn from now until Nov. 30.

Additionally, the board will meet Nov. 16th at the Hampton Inn in Waterville to receive public comment.

Maine News Stories

October 31, 2007

Federal Study Influences BT Corn Debate

Repercussions from the release of a new federal study on genetically engineered corn were being felt in Augusta today as speculation mounted over the study's implications on the ability of Maine farmers to grow certain varieties of the vegetable. The National Science Foundation has concluded that toxins from BT corn may travel long distances in streams and could harm insects that serve as food for fish. As A.J. Higgins reports, opponents of genetically engineered crops plan to use the federal agency's findings in its arguments before the Board of Pesticides Control and Legislature's Agriculture, Conservation and Forestry Committee which are currently reviewing the issue.

Link to complete audio of story: <http://www.mpbn.net/asx/071031btcorn.asx>

KENNEBEC JOURNAL

COMMENTARY

Science should be only criteria for setting biotech corn rules

Douglas R. Johnson, Ph.D.

KENNEBEC JOURNAL *Morning Sentinel*

10/18/2007

It took nine years, but Alan Lewis, a former member of the Maine Board of Pesticides Control, got what he wanted.

In December 1998, when the board was considering license applications for several varieties of biotech-enhanced, insect-resistant corn, Lewis said, "This board needs more than anecdotal evidence. ... The words I keep hearing are 'guess' and 'assume.' In my training as a scientist, the first thing we try to get away from is guessing and assuming."

Faithful to Maine law, the board turned down the applications because the applicants could not provide evidence there was a need for the products.

Fast-forward to 2007. In July, the pesticides control board reversed itself and voted unanimously (with one abstention) to approve seven varieties of insect-resistant field corn used to feed cows. The evidence of need was convincing.

A scientific study showed that the insects the corn is designed to resist were in fact active in Maine. Farmer after farmer testified that the biotech corn would make a difference in their dairy operations by increasing yields and cutting chemical pesticide use. Indeed, it was exactly the evidence Lewis, now no longer on the board, asked for nine years ago.

The final chapter in this saga, however, is still being written.

After approving the registrations, the board invoked its rulemaking authority and began considering rules governing the use of the corn products. Though the rules are still in draft form, there is cause for concern.

One of the proposed rules would require farmers to obtain a pesticide applicator's license before planting insect-resistant corn. Why? The 191-page study manual for the licensing exam has good information about chemical pesticides, but has no information -- none -- about planting insect-resistant corn.

Another rule would require plots of insect-resistant corn to include 660-foot buffers separating it from organic corn, seed corn and sweet corn.

Again, why? Organic growers are required by national organic standards to maintain their own buffers. Same for seed growers. The rule would only duplicate buffers already in existence. Much of the sweet corn sold in Maine grocery stores is already biotech-enhanced, so public safety isn't an issue.

The Maine Board of Pesticides Control took an important step when it considered the corn registration applications. It appointed a technical committee to analyze the scientific evidence supporting the products and to address the concerns of opponents. The 34-page report was full of information and analysis, all of it based on facts and science -- just what Lewis was looking for in 1998.

Though the report did not contain a recommendation on whether to approve the registrations, the conclusion was inescapable. Science supported the products. That and testimony from Maine farmers about the need for the products led to the unanimous vote for registration.

The draft rules take a step back from the science-based standard the board used to evaluate the original applications. Findings in the technical committee's report actually contradict the draft rules. The board's conclusion in 1998 that the products pose no health or environmental risks also conflicts with the draft rules.

Most disturbing is the abandonment of the "need" standard in the rulemaking process. It took nine years of data gathering and a scientific study to establish the need for the insect-resistant products in Maine. In the face of that, the board had no choice but to approve the products. Now, because a well-organized minority of Maine farmers and backyard gardeners is crying foul, the board is considering onerous rules that would make the products impractical to grow in Maine.

Why shouldn't the same standard of need apply to both groups -- those who want the products in Maine and those who don't? The proponents of insect-resistant corn did their homework, conducted studies and presented the board with a solid science-based argument for registering the products.

Now it's time for the opponents to do the same. If opponents believe rules are necessary to protect organic farmers or the public, it's their job to do the homework and make the case. As Lewis so correctly said, guessing and assuming aren't enough.

Douglas R. Johnson, Ph.D., is executive director of the Maine Biotechnology Information Bureau. www.mainebioinfo.org, which is funded by pharmaceutical and biotechnology companies, some of which manufacture bioengineered, insect-resistant corn.

Beyond Pesticides Daily News Blog

Despite Concerns, GM Crops on the Rise in Europe

(*Beyond Pesticides*, November 2, 2007) According to figures released this week, genetically modified crops now cover 110,007 hectares of arable land across 7 European Union member states, an increase of more than 77 percent compared to last year, despite concerns from scientists and environmentalists. The figures show that the largest gains came from France, which quadrupled its cultivation, while Spain, the EU's largest GM cultivator, saw increases of around 40 percent. Cultivation of GM crops also doubled in the Czech Republic and Germany. EuropaBio, the EU association for bioindustries, released the figures in advance of the Environmental Council meeting, which took place on October 30 to discuss proposals on GMO cultivation and import bans. "We are delighted to see that the uptake of biotech crops is growing despite the fact that only one product is available on the European market," said Johan Vanhemelrijck, Secretary General of EuropaBio. He continued, "The cultivation of biotech plants is legally possible in all EU countries and we strongly urge policy makers in Europe to give all farmers the right to choose the products which they think are best to protect their crops and increase their competitiveness."

To date, the only type of GM crop grown in the EU is Bt maize (corn). Bt maize contains a gene that allows the maize to defend itself against the European corn borer. The European corn borer is an insect present primarily in southern and middle Europe, and is steadily making its way north.

However, these statistics come a week after French President, Nicolas Sarkozy, announced a moratorium on GM crops. Speaking at Le Grenelle, a summit for French environmental policy, Mr. Sarkozy said, "As a matter of precaution, I would like the commercial culture of GM pesticides to be suspended pending expert opinions. The truth is that we have doubts about the current use of GM pesticides, the truth is that we have doubts about the control of distribution, the truth is that we have doubts about the health and environmental benefits of GM crops."

Along with placing a temporary freeze on the planting of genetically modified crops in France, the President proposed cutting pesticide use by half within a decade and, that all cafeterias in schools and public buildings be required to offer organic food once a week.

President Sarkozy's concerns echo those of many within the scientific community. A recent study by researchers at Indiana University suggests that Bt corn can pose unforeseen risks to aquatic ecosystems by harming non-target aquatic insects and disrupting the connected food web (see [Daily News Blog](#)). Other concerns about GM crops include increased insect resistance, pollen drift and contamination on non-modified crops, harm to human health and the impact on farmers. For more information on GM crops, please visit Beyond Pesticides [GMO page](#).

Sources: [Farmers Guardian](#), [EuropaBio Press Release](#)

Down to Earth

Thoughts on Maine's environment

John Richardson, Staff Writer

November 02, 2007

State rewarded for cautious approach to Bt corn

Maine will soon become the last state in the nation to let farmers grow corn that's genetically engineered to be toxic to pests.

The state's "I Lead" motto notwithstanding, this is one of those cases when being last has its advantages.

A new federal study that made news this week found the genetically engineered variety – called Bt corn – may get into streams and kill insects that provide food for fish.

Opinions about what to do with that knowledge range from ignoring it to reversing course and keeping Maine a Bt-free zone. At the very least, it's one more kernel of information for Maine regulators to chew on as they take up the state's first set of rules for growing Bt corn.

Bt corn is engineered to produce a toxin – bacillus thuringiensis – that protects the crop against European corn borers. Bt is a natural toxin and can also be sprayed on crops, but it degrades quickly and doesn't work for long.

Corn that's sprayed with Bt is still considered organic and can be used as feed on organic dairy farms. The genetically engineered variety, on the other hand, is, officially, not organic.

Bt corn now represents about 35 percent of the corn acreage in the United States. Much of that gets eaten by livestock. But, if you've eaten corn on the cob anyplace other than in Maine, or even just outside of corn season here, you've probably eaten Bt corn. Swallowed any corn chips? Canned corn? Popcorn? Then you've eaten the genetically engineered variety.

Maine's Board of Pesticide Control rejected the use of Bt corn a decade ago when its use was being phased in everywhere else around the country. Last year, however, seed manufacturers and farmers went back to the board and got permission to grow Bt field corn for feed.

So far no one has asked for permission to grow Bt sweet corn to sell at farm stands and supermarkets. This is Maine, after all. One new thing at a time.

The board opened the Bt door despite a range of objections, including the potential for human health and environmental effects. Opponents also argued that the state's farmers have developed a valuable competitive advantage simply because of Maine's reputation as the lone organic holdout.

Board members ultimately sided with those who said the engineered corn has now been shown to be safe for people and the environment. But they also decided not to blindly follow the other states.

Maine's proposed rules define Bt corn as a regulated pesticide, a step beyond federal rules. They also would require farmers to be licensed to plant Bt corn and take precautions not required elsewhere.

The rules are the focus of what is expected to be a big Board of Pesticide Control meeting Nov. 16 in Waterville. That meeting got even bigger this week when word of the National Science Foundation study spread through the state.

The report, which was published last month, said pollen and pieces of corn plants can drift or get washed into streams, a possibility that had not been studied by federal regulators before. The toxin is eaten by caddisflies, which happen to be a close relative of corn borers as well as a favorite food of fish and amphibians.

That report provides some late ammunition for those who hope the board changes its mind and bans Bt corn, or at least adopts strict rules about how its used.

Either way, the state has the advantage of going slow.

Posted by at 08:18 PM

-----Original Message-----

From: Mary Beth Hart [mailto:Mary-Beth.Hart@usa.dupont.com]

Sent: Thursday, October 25, 2007 9:33 AM

To: Hicks, Lebelle

Cc: Tracy Ann Rood; Lance E. Bailey; David Kosztyo; derek.hines@plantpioneer.com; Patrick Arthur

Subject: Fw: HerculexR Approval

Lebelle,

This email and press release went out to several Ag Commissioners yesterday. Please share this with members of the MEBPC. Thank you.

Mary Beth Hart
DuPont Government Affairs
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Washington, DC 20004
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From: Grandgenett, Erin

Sent: Wednesday, October 24, 2007 4:24 PM

To: A. G. Kawamura; Adrian J. Polansky; Andy Miller; Bill Northey; Bob Odom; Celia R. Gould; Charles A. "Chuck" Hartke; Charles Bronson; Charles Kuperus; Dennis Wolff; Donald Butler; Donna Rise; F. Phillip Prelli; gene.hugoson@state.mn.us; Givens, Ken; Greg Ibach; Gus R. Douglass; Hugh Weathers; John Etchepare; John Stulp; Katie Smith; Katy Coba; Kenneth Ayars; Larry Devilbiss; Leonard Blackham; Lester Spell; Michael Scuse; Mitch Irwin; nmagsec@nmda.nmsu.edu; Patrick Hooker; Richard Bell; Richie Farmer; Robert Boggs; rod.nilsestuen@datcp.state.wi.us; Roger Allbee; Roger Richardson; rojohnso@state.nd.us; Ron de Young; Ron Sparks; sandra.kunimoto@hawaii.gov; Scott Soares; Seth "Brad" Bradstreet; Stephen Taylor; Steve Troxler; Terry L. Peach; Todd Haymore; Todd Staples; Tommy Irvin; Valoria Loveland; William Even

Subject: Herculex® Approval

Ag Officials,

We want to share with you today's press releases regarding the European Union's import approval of corn containing the Herculex® RW Rootworm Protection trait, as well as the stack of Herculex® I Insect Protection and Roundup Ready® Corn 2 (RR2). This announcement shows the growing acceptance of biotechnology as a safe and practical means through which we can meet the food, feed and fuel needs of the world today.

Sincerely,

DuPont State Government Affairs Team

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EU Approves Herculex® RW Corn for Food, Feed, Import and Processing
Imports into the European Union Also Authorized for Corn Stacked with Herculex® I and RoundupReady® Corn 2 Traits

BRUSSELS, Belgium, Oct. 24, 2007 -- The European Union Commission today announced that it has approved two biotech corn products for food, feed, import and processing jointly developed by DuPont and Dow AgroSciences LLC, a wholly owned subsidiary of The Dow Chemical Company. Corn products containing the Herculex® RW Rootworm Protection trait (also known as 59122 maize) and the Herculex® I insect protection trait stacked with Roundup Ready® Corn 2 (also known as 1507xNK603 maize) are now permitted for import into the European Union (EU).

“Today’s approval is encouraging and we look forward to continued progress in the EU biotech approval process,” said Dean Oestreich, DuPont vice president and general manager and president of Pioneer Hi-Bred, a DuPont business. “We urge the Commission to ensure similar treatment for cultivation applications so that Europe’s farmers can enjoy the same benefits as millions of other farmers around the world.”

These products have been deemed safe by the EU’s own independent scientific authority, the European Food Safety Authority (EFSA), and have already been approved in numerous other countries around the world. Both products are now authorized for import into the EU in accordance with EU regulations, including the appropriate labeling and traceability of the products and their derivatives.

“These approvals tell us that the EU recognizes both the safety and benefits of our biotech products,” said Dow AgroSciences President and CEO Jerome Peribere, “and the importance of a

functioning approval process that ensures continued access to these products as important ingredients for animal feed for Europe's livestock producers."

Herculex® RW has been genetically modified with the Bt trait to provide a means of protecting corn plants against destructive insect attacks with a reduced environmental footprint. Herculex® RW helps reduce pesticide applications and, because it produces more grain on the same land area, it improves farm productivity and profitability – sustainable agriculture in practice.

The Herculex® I, Roundup Ready® Corn 2 stack was developed from traditional breeding methods of two genetically modified corn lines (1507 maize and NK603 maize) and contains no new genetic modifications. Herculex® I and Roundup Ready® Corn 2 were approved by the EU for food, feed, import and processing in March 2006 and March 2005, respectively.

Dow AgroSciences LLC, based in Indianapolis, Indiana, USA, is a top-tier agricultural company providing innovative crop protection, pest and vegetation management, seed, and agricultural biotechnology solutions to serve the world's growing population. Global sales for Dow AgroSciences, a wholly owned subsidiary of The Dow Chemical Company, are \$3.4 billion.

Dow is a diversified chemical company that harnesses the power of innovation, science and technology to constantly improve what is essential to human progress. The company offers a broad range of products and services to customers in more than 175 countries, helping them to provide everything from fresh water, food and pharmaceuticals to paints, packaging and personal care products. Built on a commitment to its principles of sustainability, Dow has annual sales of \$49 billion and employs 43,000 people worldwide.

Pioneer Hi-Bred, a DuPont business, is the world's leading source of customized solutions for farmers, livestock producers and grain and oilseed processors. With headquarters in Des Moines, Iowa, Pioneer provides access to advanced plant genetics in nearly 70 countries.

DuPont is a science-based products and services company. Founded in 1802, DuPont puts science to work by creating sustainable solutions essential to a better, safer, healthier life for people everywhere. Operating in more than 70 countries, DuPont offers a wide range of innovative products and services for markets including agriculture and food; building and construction; communications; and transportation.

#

10/24/07

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® Roundup Ready is a registered trademark of Monsanto Technology LLC

Background information on these applications:**59122 maize (Herculex® RW)**

(Application Reference: EFSA-GMO-NL-2005-12)

- Application submitted under Reg. (EC) 1829/03 to EFSA via the Competent Authority of the Netherlands on January 24, 2005
- EFSA acknowledged as a valid application on September 16, 2005
- EFSA adopted a positive safety opinion on March 23, 2007
http://www.efsa.europa.eu/EFSA/efsa_locale-1178620753812_1178620768441.htm
- No decision in Standing Committee meeting on June 25, 2007
- No decision at EU Agricultural Council meeting on September 26, 2007
- Approved October 19, 2007

1507xNK603 maize (Herculex® I x Roundup Ready® Corn 2)

(Application Reference: EFSA-GMO-UK-2004-05)

- Application submitted under Reg. (EC) 1829/03 to EFSA via the Competent Authority of the United Kingdom on September 27, 2004
- EFSA acknowledged as a valid application on April 1, 2005
- EFSA adopted a positive scientific opinion on March 28, 2006
http://www.efsa.europa.eu/EFSA/efsa_locale-1178620753812_1178620769379.htm
- No decision in Standing Committee meeting on June 8, 2007
- No decision at EU Agricultural Council meeting on September 26, 2007
- Approved October 19, 2007

Yellow jackets swarm birthday party

by Ian Bauer
The Milpitas Post

Article Launched: 10/10/2007 02:56:49 PM PDT

More than 30 fifth-graders attending a classmate's 10th birthday party at Murphy Park Saturday will long remember the festivities, but not for the cake or the favors.

On Oct. 6 at about 3:30 p.m., a swarm of stinging insects first thought to be bees, but later identified as yellow jackets marauded John Sinnott Elementary School students and their parents during the birthday festivities.

"It was the scariest thing that's happened to me recently," said Martha Lamdin, who was hosting the party for her daughter, Sarah, who turned 10 years old Saturday.

For much of the afternoon, Lamdin said all was well as children played games and had fun at the party, which had gone on for about three hours uneventfully.

Then the fun turned to panic.

"One of the kids stepped on a hive inside the ivy," Lamdin said of low-lying foliage next to the park's perimeter fence. "He stepped on it and these bees started to swarm and sting."

That's when Lamdin heard screaming children.

"This was a different kind of screaming; this was like screams of terror," Lamdin said.

The children, covered in stinging insects, soon ran into her parents' white, two-story home at 1528 Saratoga Drive, which abuts Murphy Park.

Lamdin said as she looked outside from the home she also saw parents swatting at the children.

"They were swatting bees off children, pulling them out of hair and off of clothes, it was all bad," she said. "It was complete and total chaos. It was 32 screaming children and bees flying everywhere."

Lamdin said several children were stung some suffering multiple stings.

"About a dozen kids got stung out of 32," she said.

One young girl, she added, was stung about 10 times, while another girl was stung eight times.

"One little girl started to get an allergic reaction," Lamdin said, adding the girl developed hives.

Calling Milpitas Police Department and paramedics, Lamdin said an ambulance arrived to treat the girl's allergic reaction, which did not require hospitalization.

Following the incident, yellow caution tape was posted by the city. Garry Mahan, a Milpitas parks maintenance supervisor, said the city brought in a private pest control company to spray four nests of yellow jackets in the bushes on Saratoga Drive.

He added the city would keep an eye on the area to make sure no yellow jackets returned.

"If they're not going away then we will call pest control again," Mahan said.

Thankful that no one was seriously hurt, Lamdin said her daughter and her classmates are now able to find a bit of humor in the incident.

"I told my daughter that everyone's going to remember your birthday party," she said.



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OH: Bedbug Problem

Posted: 9:12 AM Oct 9, 2007

Last Updated: 9:12 AM Oct 9, 2007



Police officers and firefighters in the City of Cincinnati are dealing with a new enemy on the streets, bedbugs. Each department is trying to come up with a new defense to deal with this growing problem. [A](#) | [A](#) | [A](#)

When firefighters hop into their trucks and rush off to an emergency, they're finding more and more bedbugs inside people's homes. Cincinnati Fire District Chief Ronald J. Texter says they're working on a plan so crews won't bring them back to the firehouse.

Texter said the department is concerned about the growing bedbug problem. The bugs are so small that sometimes you can't see them.

Bedbugs survive by crawling onto the skin and sucking blood from their victim. It's easy to see why no one wants to come in contact with them.

If a firefighter walks into a home with bedbugs, they're being encouraged to clean their equipment as soon as they return to the station. Chief Texter admits that's easier said than done.

The Cincinnati Fraternal Order of Police says officers have similar concerns. Both departments are working on a plan to deal with the problem. The fire department is educating personnel in addition to hiring an exterminator.

The Cincinnati Health Department says more people are calling about bedbugs. The best way to get rid of them is to hire an exterminator. The Cincinnati Health Department's website, linked above, has more information.

Find this article at:

<http://www.wifr.com/nationalnews/headlines/10339172.html>

Check the box to include the list of links referenced in the article.

Little Bugs Pose Big Problems for Indoor Comfort

By Jonathan Miller

*One black bug bled blue-black blood.
The other black bug bled blue.*

Over the course of a few weeks, 5-year-old Duncan, whose surname has been withheld to protect his family's identity, developed small red lesions on his torso, legs and arms. First, there were just a few. As each day passed, there were more. Duncan's father, Andy, a surgeon in the U.S. Army, thought the lesions were an allergic reaction. Duncan was tested and came up positive for a wheat allergy. His mother, Caroline, was distraught by the diagnosis, but relieved that her son's illness could be controlled.

That night, however, Duncan's 2-year-old brother, Ian, woke up screaming.

When they flicked on the lights, Andy and Caroline were aghast at what they found—about a dozen tiny, brown insects scattering into the dark recesses of Ian's bedding. The boy's back was speckled with tiny dots of fresh blood.

Big brother Duncan's mild wheat allergy wasn't the problem in the house. The problem was bed bugs.

It's common knowledge that bed bugs are a household pest, tiny insects that live in our beds and feed on our blood. But after being nearly completely eradicated in middle of the 20th century, leaving them more the subject of nursery rhymes than a detriment to indoor comfort, bed bugs are back—and in a big way.

The common bed bug (*Cimex lectularius*), the particular species best adapted to human

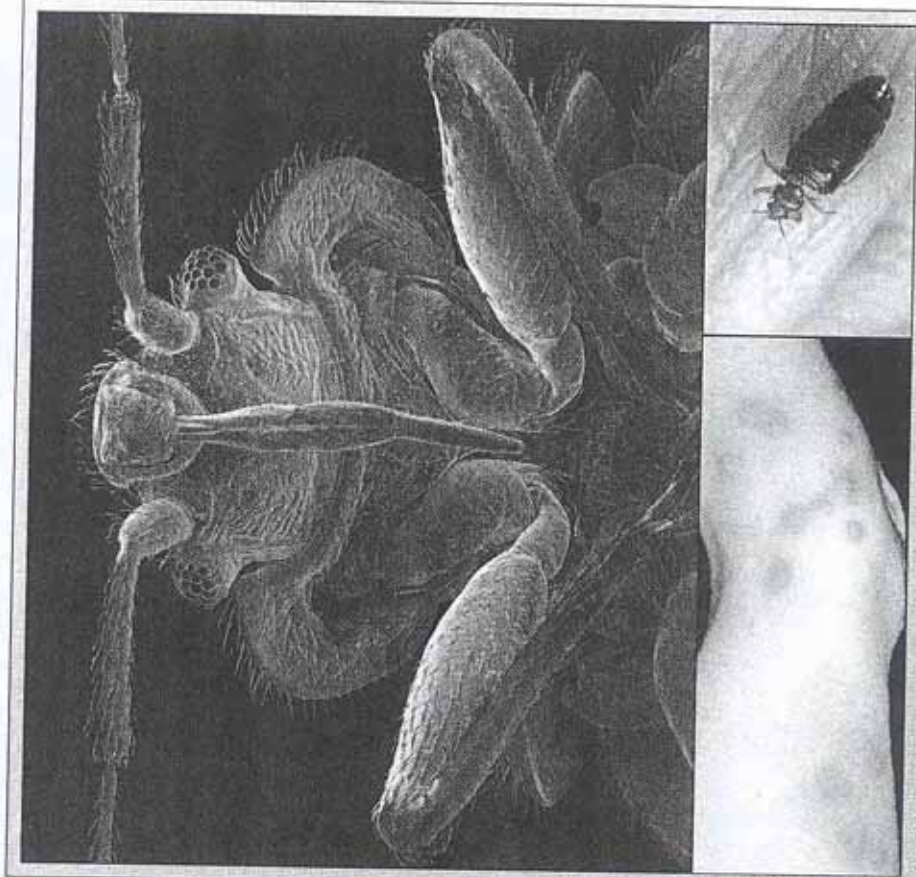
hosts, can be found in any temperate environment around the world. Its relationship with mankind goes back to the beginning of history. The tiny (4–5 mm), reddish-brown oval insect feeds on blood, primarily human. Nocturnal, it attacks most often in the hours just before dawn, attracted by warmth and the carbon dioxide in exhaled air. It feeds by inserting two hollow tube-like mouth parts, one of which injects anesthetics and anticoagulants while its partner sucks blood. After feeding, the bed bug returns to its hiding place, usually in upholstery seams or cracks in a nearby wall.

A bite may not be noticed for hours after the fact due to the injected agents, and some people only react after repeated bites, but once the skin reacts, the resultant red welts can be extremely painful and irresistibly itchy. The most common targets are the lower limbs as these are the most likely to be exposed during sleep, and several bites in a row or cluster are common as the insect may be disrupted while feeding.

Pest Control Takes Notice

According to a fact sheet on the National Pest Management Association's Web site, bed bugs have finally reached attention-grabbing levels for pest control companies—association members have reported bed bug calls 50 times more frequent than in previous years.

Statistics from a national survey, provided to *IE Connections* by Cindy Mannes, NPMA vice president, show 47.9 percent of pest control companies offered bed bug control in 2006,



A microscopic image of a bed bug, highlighting its feeding apparatus. Bed bug infestations are on the rise in the United States despite the insects' near elimination in the 20th century. Although they pose no direct threat to health, the bites can cause extreme discomfort. Bottom left: A human arm covered in bed bug bites. Bottom right: a live bed bug, engorged with blood, pictured on a human finger.

See *Bugs*, page 8

Bugs, from page 1

a 33.4 percent increase from 2005. The largest percentage occurred in the Northeast, where 72.9 of companies reported offering bed bug control service.

Although no figures were provided for any previous period, the percentage of pest management professionals reporting bed bug-related calls between 2000 and 2005 increased 71 percent. "Many are getting 10-50 and more a week," Mannes wrote.

Research conducted by NPMA-member professionals between 2004 and 2005 showed hotels and motels to be the most frequent sources of calls - 37.2 percent - while apartments were responsible for 23 percent and single family dwellings 21.6. The "Other" category registered 16.2 percent, with college dormitories rating last at 2 percent.

Most calls - 52.3 percent - came from cities, with suburban areas accounting for 14.8 percent of calls. "Other," which, according to Mannes, "could be anything from movie theaters to airplanes," yielded 16.1 percent of calls. Vacation spots and resorts were responsible for 13.4 percent. Rural areas with low population density accounted for only 3.4 percent of calls.

Although bans on such pesticides as DDT are simple explanations for the insect explosion, experts point to recent changes in lifestyle among Americans, most notably greater international travel - 56.7 percent of respondent professionals believed this to be the case, whereas 25.1 percent believed new targeted treatment methods were simply exposing a problem long thought dormant.

In the past, insect invasions in the home would frequently be solved with the use of aerosol pesticides, spreading powerful poison agents throughout the treated area, including out-of-reach spaces. But when DDT and other such pesticides were deemed illegal and the health effects of residual spray application became known, exterminators and pest control professionals turned to other means, such as gel-based insecticides, to treat infestations.

While such measures work well against cockroaches and other pests, inducing them to voluntarily eat the substance of their own demise, bed bugs and other blood suckers are immune by virtue of one simple fact: they are incapable of eating gel.

In lieu of professional treatment, people can take remedial action on their own. Results vary unpredictably, but simple measures can alleviate a small infestation in the short term.

Steam cleaners on mattresses and box springs and using high-temperature washers and dryers for bedclothes can kill individual insects and their eggs, even within the body of a mattress. Barrier methods, such as placing bed legs in cups of water or surrounding them with strong double-sided tape, or ensuring bedclothes do not touch the floor, are simple means by which bed bugs can be prevented from re-entering the bed itself. Spraying individual bugs with rubbing alcohol will kill them, but only to facilitate a short-term fix. Covering mattresses and box springs with plastic and sealing the edges can prevent the spread of bed bugs into treated space. Even with all those efforts, a pet or human guest can inadvertently reintroduce bed bugs simply by sitting on a treated bed.

To attain permanent extermination, professional treatment is advised.

Perception and Misconception

Public awareness is growing, perhaps feeding the increases in call volume as much as the actual incidences of infestation. A campaign initiated in 2005 by an advocacy group founded by the NPMA, the Professional Pest Management Alliance, that warned of the growing presence of bed bugs in homes yielded news media coverage around the country, including major network news stories. Although the efficacy of PPMA's work on consumers is unknown, NPMA's surveys demonstrate a public more concerned than informed.

In comparison to other types of pest infestation, such as rodents or cockroaches, 60.2 percent of pest control customers reported feeling "more upset" at the news, 35.7 percent the "same" and only 4.1 percent "less upset" in NPMA's survey. Additionally, 11 percent of female homeowners felt bed bugs were "a threat to their families' health." When asked for words to describe their feelings, customers most often used terms such as "disgusted," "panic," "shame," "dismay," "sanitation" and "thought they were a myth."

These responses point to common misconceptions about bed bugs. The hard survey data point to the chief cause of bed bug infestation - dense living conditions, in which a single pregnant female bed bug can birth thousands of progeny capable of searching hundreds of feet for hosts. One or a small group of individuals inadvertently carried in a person's clothing or luggage can lead to a serious problem back home.

Although a stigma of uncleanness is attached to such problems, messiness, which provides the insects safe quarters for rest, is a much greater cause of widespread bed bug infestation. But keeping tidy is no guarantee of respite - bed bugs, which prefer close proximity to their hosts, can find safe haven in walls, gaps in moulding or holes in furniture.

Despite the ability of bed bugs to carry vi-

ruces such as hepatitis and plague after a blood meal, there is no evidence they pass such infections on to their hosts. Aside from discomfort, the greatest health dangers posed by bites are infections and subsequent loss of immune-system function in the skin.

A Public Problem

People outside the pest control industry, like Andy and Caroline, are taking notice. It can be difficult not to notice rows of itchy red welts.

Radhika, whose surname has likewise been withheld, suspected some sort of biting insect when welts began appearing on her arms and legs shortly after moving into a new apartment building in May. Despite the building's age, the unit was newly renovated and carpeted, and because neither her husband nor cats displayed any bite symptoms, she assumed an allergic reaction or mild, stress-induced illness. Near some of her bites, Radhika noticed other rashes. It wasn't until several months later, when she discovered a small, round, dark-colored insect crawling on her bedroom wall, that she per-

formed her own research.

"I knew they were bed bugs before I did my research," Radhika said, citing the insect's appearance and a prior inspection ordered by the apartment building's management. This was particularly alarming to Radhika and her husband - the inspection, performed in August, revealed no signs of infestation.

"I wonder why he [the inspector] didn't find it earlier. I'd been being bitten for months - I just didn't know I was being bit." She noted that it was shortly after her discovery that her husband reported painful, itchy welts on his ankles.

After taking up the issue with building management, another inspection was ordered. Following the advice of friends and some Internet resources, Radhika and her husband took short-term remedial action to at least halt the bugs' spread. They used a commercial insecticide on bedroom surfaces and furniture outside the bedroom, and encased their mattress and box spring in plastic covers to prevent any further bed bug spread

See Bugs, page 14

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Bugs, from page 8

throughout their apartment. In the process, they discovered several individual insects in the box spring's seams and bagged them for analysis by the inspector.

According to Radhika, the inspector felt no need to further inspect their home after seeing the bags. "He said, 'Yep, you have bed bugs,'" she related. After informing Radhika that the apartment would be treated, with arrangements to be made through the building's management, the inspector left.

Having educated herself about bed bugs prior to the inspection, Radhika described

her feelings as "annoyed and pissed." "They [the bed bugs] were clearly there for the first inspection." She pointed out bites evident on her arms in photos from the couple's recent wedding.

"We think they're only in the bedroom, though," she said with relief.

And despite being glad the apartment would be treated, she expressed worry about the possibility of temporary relocation and reiterated her frustrations. "We clearly didn't bring them here. We didn't have them before." Radhika wondered about the possibility of building overcrowding as a cause. She also allowed that the unit's renovation,

including carpeting over floors that had previously been hardwood, may have contributed.

"But I'm just glad I'm not sick," she said.

Caitlin Heller, writer of The Bedbug Blog, has been chronicling her own problem with bed bugs for over two years while providing a forum for others suffering from infestation.

After enduring a long bout of bed bug infestation in her home, Heller began blogging, as she explains in the blog's first post, "to document my experience should I ever need the information (god forbid) in a court case or to request compensation for my losses, and also to try to help others who are dealing with a similar problem ..." after first sharing her experiences

on her other personal blog.

From its outset, The Bedbug Blog recounted Heller's up-and-down path to a bed bug-free home. Shortly after the initial post, she believed her ordeal to be over and planned to put the blog on hiatus, posting updates and information for readers.

Heller stated in one post, "I can only assume that there will be a reinfestation someday, being that the original infestation was so widespread in my apartment building to begin with." She was right — a few weeks later, bites began to reappear.

Since then, Heller has endured repeated infestation relapses, each time furnishing accounts of discovery, treatments and hope. A growing readership of well-wishers and fellow sufferers led to posts of bed bug information and news, including advice on remedial action.

The Bedbug Blog's most recent post, dated August 19, reflects Heller's accumulated knowledge: "The exterminator came on Wednesday last week and I think that we've seen the last of the bedbugs in this apartment for a long, long time.

"Contributing to the quick and painless process this time around was the fact that I caught the signs early and I found a live one right away, after only three bites. I had an exterminator in exactly two weeks after getting the first bite and he was exceptionally thorough. We did all the laundry, even though it was only for three bites. And now it has been nearly a week and a half since I last got any bites.

"I'm crossing my fingers that this is it once and for all, but I'm grateful that it didn't get to be as bad as the first time. It says a lot for being informed and getting a professional in to do the job as soon as possible."

Aftermath

Since the pest control inspector's evaluation of their apartment, Radhika and her husband have tried to create as normal an environment as possible for themselves and their cats. But as of press time, they are yet to be informed of their building's plan to exterminate the pests.

"I don't know when it might be," Radhika said, "but I hope they can do it when we go away next week." She noted that the family pets, for their safety, will make the trip as well.

Until an extermination is carried out, Radhika and her husband plan on using plastic covers, commercial pesticides and basic remedial actions, such as isolating their bed from the rest of the room, to curb any bed bug activity in their home.

Andy and Caroline have been aggressively fighting their infestation for more than two months. After an initial treatment, which required them to clear the house for 24 hours, failed, they ordered a stronger dose of chemicals and vacated to a hotel for 10 days. They also threw away thousands of dollars' worth of bedding, mattresses and upholstered furnishings.

During their extended hotel stay, the lesions on Ian and Duncan healed. But since returning home in mid-September, the family has consistently found live bed bugs. Caroline told *IE Connections*, "We are on a program where our house will be treated every few weeks, and we have to evacuate at least one night each time because the chemicals are strong. This will last several months. It has cost us dearly, but we just want our clean home back."

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Discipline threatened as Clarkstown North students protest roaches, rats

By **STEVE LIEBERMAN**
THE JOURNAL NEWS

(Original Publication: November 1, 2007)

NEW CITY - Several hundred students walked out of classes at Clarkstown North High School yesterday to protest unhealthy conditions that had included rats, maggots, roaches and flies.

The teenagers rallied on the sports fields, holding signs that read, among other slogans: "Walkout," "Clean North" and "Rams not roaches." The school mascot is the Ram.

They chanted slogans, including, "Save our school, roaches must go" and "No more rats."

Drivers heading down Congers Road honked their car horns in support of the students, who face disciplinary action from school officials for missing class without permission.

Pressed against the school fence on Congers Road, students said they first planned to march to Clarkstown Town Hall. Several students said school administrators and police discouraged a walkout and told them they would be violating the law if they left the campus.

Students said they needed to get the district administration's attention to their plight, if not for themselves but for their brothers and sisters who would attend the school in the future. The roach problem has been known for decades, while district officials said yesterday that the rat infestation started three weeks ago and has been cleaned up.

Students interviewed spoke about finding roaches in their clothes left in the gym lockers.

"Nobody is taking us seriously," Shanna Grandes, 16, said amid the chanting by her fellow students. "This is to wake up the district and many of our parents."

Stephen Jean-Baptiste, 17, a senior, spoke of the frustration felt by the students and teachers.

"It's disgusting," he said. "There are roaches and rats and they're not doing anything."

Student Austin Avaras, 14, said he had seen some insects in the school.

"They have roaches in the bathroom," he said. "It's disgusting."

The District Superintendent's Office refused to allow a reporter or photographer onto school property to speak to students and said Principal Harry Leonardatos could not speak with a reporter.

"The principal is not available today," said Maureen Sullivan, assistant to Superintendent Margaret Keller-Cogan. "He is actively working with students."

Keller-Cogan later held a news conference along with the principal, the facilities director and several students. Keller-Cogan, her administration and the school board have come under criticism for taking too long to notify the

If you go

What: Board of Education emergency meeting on the conditions at Clarkstown North High School.

When: 7:30 tonight

Where: High school auditorium, 151 Congers Road

community about the issue.

Keller-Cogan said yesterday that the district in recent weeks found and removed three dead rats, including a decomposing rat that was crawling with maggots and drew flies at the high school's annex building.

She said an exterminator was checking the school three times a week for roaches and other insects, and the Rockland Health Department has said the school was clean of maggots and rats.

"There is a lot of misinformation out there ... and a lot of time the information is sensationalized and exaggerated," she said during a news conference. "For now we don't have a rat and maggot problem."

The district announced yesterday that an emergency meeting about problems at the school would be held tonight.

Keller-Cogan, who came to the district 15 months ago, said district officials believe the three rats killed had migrated to the campus when a vacant building 150 yards away from the campus was demolished about three weeks ago. She said the dead rats came from a nest near a Congers Road home that was recently demolished.

A Rockland Health Department inspection of the house on Sept. 12 before demolition didn't find any evidence of rats at 255 Congers Road, according to county records.

Inspectors in the Bureau of Rodent Control looked for evidence of rats, including burrows, gnawing, droppings and food sources, said Tim Hekl, chief housing inspector.

"We found no evidence of rats," he said.

The district's facilities director, Frank Stefanelli, said the school didn't have a rat problem before the acre and the house were cleared.

"We didn't have a rat problem until two days after they knocked down the house and cleared the land," he said. "They must have disturbed something."

Keller-Cogan said the long-term solution amounted to gutting the aging school and rebuilding, which could cost "tens of millions of dollars." She said the district has committees working on plans for the building. She said the school board was contemplating asking taxpayers to support a bond issue.

But the patience of the students and many parents has reached a breaking point.

Congers parent Keith Brennan watched the students protest from his car on Congers Road. He said he supported his daughter's decision to walk out, even if she is disciplined for cutting classes, and was proud that she and other students took a stand.

Brennan said he and other parents pay thousands of dollars in school taxes to give their children the best education, and the conditions at the school were a disgrace. He said his daughter had told him about seeing maggots in the ceiling as well as rats.

"This is a disgrace, and something I as a parent can't accept," Brennan said.

Darlene Radice of New City joined her children after they walked out. Her 16-year-old son, Matthew, showed her a cell-phone photo of a dead rat that he said he took several days ago in the annex area.

"It's horrible," Radice said. "It's disgusting. This problem has been going on for many, many years. You have a school with maggots and rats. They should shut the school down for a week and clean it up."

Keller-Cogan said depriving the children of their education by closing the school for a week was the wrong way to go. She said the maintenance program would continue.

Radice said the students should not be punished for exercising their right to protest and walking out of class for one period.

Leonardatos said he admired the students for their activism and agreed that the unhealthy conditions needed to be cleaned up - and said most were. He said many children eat their lunch in classes and while studying, and garbage is left on the ground and floors, adding to the roach problem

He said his job is to ensure the students attended classes and were safe. Before the walkout during an assembly, Leonardatos said he and others spoke to the students and told them they had choices.

Instead of walking out, he said, the students could work with the school on the problems. He said he also told them there would be consequences to missing classes. He said he told students they could miss class by attending another assembly and ask questions without being disciplined.

He said each student who walked out would get a zero for the class, and an unexcused absence and a letter in their file, which potential colleges might review. The unexcused absence would not offer an explanation that the students were protesting what they felt were unhealthy conditions, he said.

"As a principal, I don't like disciplining students," Leonardatos said, citing the school's code of conduct about cutting class. "I share the students' activism. They are free to make a choice. But consequences come with making choices."

And several of the students who walked out said they would accept the consequences of their actions.

Jessy Feinberg, 16, said she felt the walkout united the school, and students needed to send a message to the district that conditions must change. She didn't think the students' voices were being heard.

"The rat was the spark to set off the rally," she said. "We did break the rules, and we will accept the consequences."

Ryan Byrnes, 17, a senior, said he walked out for his sister and brother who would attend the high school one day.

"I don't want to be like other seniors of 15 years ago who left the school and did nothing about the conditions," Byrnes said. "As a senior I want to make a difference. I want the class of 2008 to make a difference."

As he and other officers watched the students, Lt. Glenn Diedrich of the Clarkstown police said they were not looking to arrest any students but were concerned that the teenagers remained safe. He noted student drivers were looking at the protesters and taking their eyes off the road as they drove by.

Students pressed against the school fence on Congers Road to rally support from passing cars. Principal Harry Leonardatos said each student who walked out would get a zero for the class, and an unexcused absence and a letter in their file, which potential colleges might reviews.

[WLWT-TV, Channel 5, Cincinnati, Ohio]

Surprise Inspection Shows Bedbugs Still Thriving

Councilman, State Rep. Find Bugs Where Treatments Have Failed

POSTED: 5:25 pm EDT October 26, 2007, UPDATED: 10:57 pm EDT October 26, 2007

CINCINNATI -- It's bad enough when your home is crawling with bedbugs: Samuel Blackmon's back and legs are crawling with them.

He is one of many in the Stanley Rowe high-rise complex believed to be infested with the blood-sucking crawlers.

On Friday, Blackmon showed off his apartment to some guests: City Councilman Chris Monzel, Ohio Rep. Dale Mallory and News 5's Michelle Hopkins.

"It's horrible. It gives me the creeps. I get chills every time I think about it," Mallory said.

"I've got to buy all new furniture. I don't know how I'm going to do it," Blackmon said.

In his bathtub, more dead bugs. Blackmon said they are falling from his ceiling.

Cincinnati Metropolitan Housing Authority bosses said Blackmon's apartment was treated a month ago.

"We are committed, and we have been successful in reducing the numbers dramatically of infestations," director Donald Troendle said.

Troendle said his agency's spent \$500,000 to get rid of the bugs, but Blackmon's apartment showed that it hadn't worked.

"This is just totally unacceptable to be occurring in public housing," Monzel said. "What we really need to do is look at attacking the problem, from inspections to cleaning to reinspections, to make sure these folks are living in places that are free of bedbugs."

People who live here -- mostly the elderly on fixed incomes -- spend as much as \$35 a month on sprays and powders to keep the bedbugs from biting.

"These are folks who have lived a good life. They don't deserve to have the last years of their lives eaten by bedbugs," Monzel said.

Monzel and Mallory said they did this inspection to bring more light to the bedbug problem in public housing.

They said they're both working to get more money and resources to stamp out the problem.

Bedbugs Shut Down Bracken Co. Schools

POSTED: 4:42 pm EDT November 1, 2007, UPDATED: 8:17 am EDT November 2, 2007

BROOKSVILLE, Ky. -- Bracken County Schools will be closed Friday due to a bedbug infestation, officials said.

One middle school student had bedbugs, but the entire district would be closed as a precaution, school officials said.

No classes had been scheduled Monday, Nov. 5, and Tuesday, Nov. 6, due to an in-service day and Election Day, so students will not be required to return to school until Wednesday, Nov. 7.

Health department officials will oversee measures intended to prevent the spread of bedbugs, and the student will receive treatment, officials said.

The missed school day will be made up Monday, Feb. 18.

Bedbugs are nocturnal insects that feed on blood, but have not been linked to the spread of disease.

Bed Bug Task Force Meets To Fight Epidemic

Group Created To Battle Bug Epidemic

POSTED: 11:38 pm EST November 5, 2007, UPDATED: 7:53 am EST November 6, 2007

CINCINNATI -- Local health officials have created a bed-bug task force to fight the creepy-crawlers that they're calling an epidemic.

The newly created task force met Monday evening and found that the problem is only getting worse.

Even organizers said the size of the crowd showed the size of the problem.

"I know some people that were eaten up pretty bad by them. My sister, one of my brothers for sure," said Vernon Harvey, who said his family had bed bugs.

Residents, politicians and even exterminators all showed up at the town meeting in Bond Hill to brainstorm and learn what's being done about the bed bug problem.

Officials said the number of complaints to the Cincinnati Health Department shot up again this year.

"It has almost doubled so far. It has almost doubled," said Mohammad Alam, with the Cincinnati Health Department.

State Rep. Dale Mallory formed the task force after complaints from the Council On Aging, which found 500 different clients had bed-bug infestations in a single month.

"I think it's a growing problem. At least at this point I think there is some attention on the issue which is a good thing," said Suzanne Abel-Burke, of the Council On Aging.

The task force has lobbied members of the state legislature for stricter guidelines but added that what is really needed is a comprehensive bed-bug strategy.

They said that a big part of the problem is that normal pesticides just don't work.

To get a list of exterminators that really know how to get rid of bed bugs, contact the Health Department.

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Green.view

Chipping in

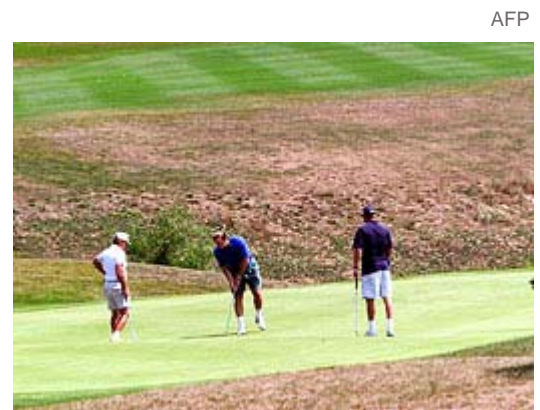
Oct 8th 2007
From Economist.com

Better course management can make golf green

LAST summer the big three American automakers, General Motors, Ford and Chrysler, who have all watched their market shares diminish under the pressure of foreign competition, suffered yet another embarrassment at the hands of Toyota. Paul W. Smith, who hosts a radio show in Detroit, passed over the hometown companies and asked Toyota to sponsor his annual golf tournament. Ten years ago, asking a foreign company to host a local event would have been unthinkable.

A decade ago it would have been similarly unthinkable for a company like Toyota, which adheres to a "global earth charter that promotes environmental responsibility throughout the entire company," to sponsor an event on one of America's often over-watered, over-treated golf courses. But like the hybrid vehicles Toyota now produces, golf is getting greener.

While some American courses are in cool-humid climate zones similar to that of Scotland, the ancestral home of the modern game, many are not. The Detroit metropolitan area is the tenth largest in the United States and its amenable climate sustains 50 courses and 4.4m residents. By comparison, the Phoenix metropolitan region is the nation's thirteenth largest, and it already boasts more than 75 blankets of lush fairways laid out on the desert sands. The booming greater Las Vegas area has more than 60 courses for less than 1.8m residents.



AFP

A green sort of brown

These courses have increased property values and brought more tourist dollars to the Southwest, but they also consume immense amounts of ever-scarcer potable water. During the summer of 2002, the third-hottest year on record, the city council of Santa Fe, New Mexico threatened to sue Las Campanas, a luxury golf and residential development, which during the height of the summer drought was consuming 1.8m gallons of water a day, ten percent of the city's daily supply.

Some courses in dry regions have begun using more efficient irrigation systems and untreated effluent water to reduce their strain on municipal supplies, but water remains scarce. Dennis Lyon, the manager of the Denver suburb of Aurora's municipal golf courses, has placed posters on all his courses that read, "Brown may not be beautiful to some, but an additional 40 yards roll off the tee can be a beautiful thing."

But keeping those fairways green requires more than just water. Beyond Pesticides, an environmental advocacy group opposed to pesticide use, calls golf courses "the most chemically treated land areas in the United States, second only to fruit orchards." Pesticides, especially older broad-spectrum, long-residual concoctions, can wreak havoc on sensitive native plants and animals.

Runoff from fertilisers can lead to algal blooms that cause dissolved oxygen levels to drop to suffocatingly low levels, strangling aquatic life. Courses in humid climates can avoid both of these problems by using wild, drought-resistant grasses that reduce the need for both irrigation and chemical treatments.

More effective organic fertilisers have led some premier courses, such as the Plantation Course in Kapalua, Hawaii on the island of Maui (which hosts the PGA Tour Mercedes Championship), to drastically reduce chemical treatment, while about a dozen courses have gone entirely organic.

In response to these trends, the Professional Golfers' Association (PGA) and the US Golf Association (USGA) have collaborated with Audubon International to establish an environmental-certification program, which rewards golf courses with free publicity if they commit to conserve water, reduce pesticide use, and create wildlife conservation plans for the approximately 70% of course land which is not used for play.

Of course, a little research, a few organic fertilisers and certification programs do not a revolution make. But they are heartening steps in the right direction.

Riverside courts 'green'

The municipal golf course is adopting changes to protect its waterways.

By JOHN RICHARDSON, Staff Writer November 5, 2007



Gordon Chibroski/Staff Photographer

Theresa Ordway of Saco lines up her putt on the 18th green at Riverside Golf Course last week as Kenny Higgins of Portland holds the flag. Riverside is making changes in an effort to be certified "green" through Audubon International's Cooperative Sanctuary Program.



John Patriquin/Staff Photographer

Judy and Gerry Ducharme of Falmouth play golf at Riverside Golf Course last week. Evergreen seedlings and no-mow areas on the course limit the runoff of pollution into the nearby Presumpscot River and the course's water hazards.

Gene Pierotti walks toward a stream near the 17th fairway at Riverside Golf Course and looks down at a wide strip of bushy grass that clearly hasn't been mowed all summer.

Pierotti is the guy in charge of keeping the course beautiful, and he likes what he sees.

Portland's popular municipal golf course has been expanding no-mow areas like this one as part of an effort to keep polluted runoff out of waterways and reduce impacts on the environment. Pierotti's grounds crew also is planting young trees and shrubs, limiting fertilizer and pesticide use and making improvements to prevent pollution from drips or spills while fueling maintenance vehicles.

"There's just an awareness now -- it's the right thing to do," Pierotti said.

These days, all kinds of enterprises are touting their efforts to go green, shorthand for reducing environmental impacts. Now Riverside is one of a handful of public and private golf courses in southern Maine hoping to become some of the first courses in the state to be certified "green" through Audubon International's

Cooperative Sanctuary Program.

While many consumers may not be sure what to make of the green label, conservationists say the trend has opened a door to changes in industries that have not always made environmental protection a priority.

"We will work with anybody that is willing to work toward improving their environmental footprint," said Joellen Zeh, who reviews golf courses for Audubon and recently visited Riverside and other Maine courses. "We find that a much more helpful way to move forward than telling people they're bad."

Audubon International, which is not affiliated with the National Audubon Society or Maine Audubon, is a nonprofit environmental education organization based in Selkirk, N.Y. It has registered more than 2,200 golf courses since its certification program began in 1991, according to Zeh.

There is only one Audubon certified golf course in Maine -- Portland Country Club. Several others are now working toward certification: Riverside, Falmouth Country Club, Sable Oaks Golf Club in South Portland, Val Halla Golf and Recreation Center in Cumberland, Sunset Ridge Golf Course and Rivermeadow Golf Course in Westbrook.

It can take a few years of gradual improvements to get certified. Riverside began last year and is already well on its way to meeting the standards, Zeh said.

Registered golf courses pay annual dues of \$200 to be in the program.

Some improvements, such as planting trees or putting a roof over the fuel pump, cost money; while others, such as reducing pesticide use and mowed areas, save money.

Riverside and other nearby golf courses are getting financial help and technical support from conservation groups that see the effort as a way to protect and improve the Presumpscot River.

The Casco Bay Estuary Project and Presumpscot River Watershed Coalition are using part of a \$740,000 federal river-cleanup grant for the golf course program.

Riverside is a key part of the effort because it sits on a 250-acre parcel of rolling hills directly next to the river, and the streams and ponds that serve as water hazards on the course drain directly into the Presumpscot.

Forrest Bell, an environmental consultant and a member of Presumpscot River Watch, said it's impossible to know what effect the golf courses have on the river because pollution comes from so many different sources.

Golf courses, however, are considered a potential threat to nearby waterways because of runoff that carries nutrients from fertilizers and toxic chemicals from pesticides.

Bell, who is a golfer, said he started thinking about those impacts about 12 years ago when he found dead birds in a pond at an out-of-state golf course. "I actually started to feel guilty" about golfing, he said.

Bell is leading the effort to green Riverside and other golf courses, providing advice and steering grant money into tree planting and other projects. The golf courses provide the labor.

"I think it will catch on," Bell said. He said he hopes the certification becomes as well-known in Maine as in Florida, where golf courses promote it as a way to attract golfers away from competitors that aren't certified.

The efforts at Riverside seem to be saving as much money as they are costing, Pierotti said. He also thinks certification could make the course more attractive to some golfers.

"Given the recent increase in consumer consciousness about climate change, which kind of filters out to all things green, it's not surprising that firms are increasingly looking at these issues," said Nancy Artz, a marketing professor at the University of Southern Maine's School of Business.

The efforts can shape a company's or industry's image, but may not directly generate more customers. "All of the surveys have shown that consumers have an interest and a care in the environment, but whether they actually will do something about that is another story," Artz said.

A green label is seen more as a tie-breaker, something that tips the balance between companies or products when cost, convenience and other factors are equal, she said.

Green claims can be confusing for consumers because there are no uniform standards, as there are for organic food labels or energy-efficient appliances, she said.

A growing number of third-party certification agencies, such as Audubon International, are offering standards, although the quality of those programs can vary, too.

Consumers also have become wary of "greenwashing," which is the use of environment-friendly marketing claims to sell services and products that are anything but, Artz said.

Golfers at Riverside last week sounded pleased about the changes.

Susan Johnson, who was playing a round of golf with her son, said she always wonders about the effects of fertilizers and pesticides on golf courses when she plays.

She doesn't use them on her own lawn and thinks reducing the use of chemicals and planting buffers are great ideas.

"If each golf course did it, what a big impact it would have," she said.

Her son, meanwhile, said he's all right with the changes, as long as golf courses keep their nice green fairways and putting greens.

"That's the whole point of golfing," Greg Johnson said, "the greenery and the scenery."

Staff Writer John Richardson can be contacted at 791-6324 or at: jrichardson@pressherald.com

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Pesticides – The risk to human health

Roman Bystrianyk, "Pesticides – The risk to human health", Health Sentinel, November 5, 2007,

We've all seen those signs on lawns warning about a pesticide application. In many communities in the United States people dutifully apply pesticides to their lawns to present a certain look. In the land that touts individuality, paradoxically how your home and surrounding lawn appear must conform within a certain narrow standard of socially acceptable parameters.

A uniform golf-course-carpet-like green lawn has become in many cases an ingrained view that is ever reinforced by a myriad of commercials offering products to achieve this utopian "Garden of Eden." According to the EPA, people used over 100 million pounds of active pesticide ingredients in 2001 to in part achieve this result. However, what are the consequences of achieving that certain look – of "keeping up with the Joneses"?

The Canadian Cancer Society states that it is very concerned about the "potentially carcinogenic (cancer-causing) substances for the purpose of enhancing the appearance of, for example, private gardens and lawns as well as parks, recreational facilities and golf courses." They base this concern on the conclusions of the International Agency for Research on Cancer, or IARC, that state the some substances used in pesticides are classified as "known, probable or possible carcinogens." The Canadian Cancer Society continues, "Since ornamental use of pesticides has no countervailing health benefit and has the potential to cause harm, we call for a ban on the use of pesticides on lawns and gardens."

However, the carcinogenicity of pesticides isn't the only cause for concern. Although it is well accepted that acute pesticide poisoning causes an array of health problems such as seizures, rashes, and gastrointestinal illness, the chronic effects are less well known. A study in Canadian Family Physician, examined all the scientific studies from 1992 to 2003 to examine the other consequences of pesticide use. In all, the study identified 124 quality studies to be included in their analysis.

In their analysis the authors found 3 non-cancer effects of pesticides – neurologic, reproductive, and genotoxic (causing DNA damage).

Neurotoxicity

The long-term effects of pesticides on the nervous system include cognitive and psychomotor dysfunction, as well as neurodegenerative and neurodevelopmental effects. Most studies found "an increased prevalence of symptoms or mood changes, as well as alterations in neurobehavioral performance and cognitive function. Studies of the mental and emotional effects of pesticides found associations for current minor psychiatric morbidity, depression, suicide among Canadian farmers, and death from mental disorders, particularly neurotic disorders in women." The authors found that, "Together, these studies provide important evidence of the subclinical effects of pesticides on the nervous system."

Reproductive System

Studies consistently showed increased risk with pesticide exposure. Specific defects included limb reductions, urinary or genital anomalies, central nervous system defects, facial clefts, heart defects,

and eye anomalies. The rate of birth defects increased by parental exposure to pesticides. Fetal death includes spontaneous abortion, fetal death, stillbirth, and neonatal death. "Results were consistent across several study designs; 9 of 11 studies found positive associations with pesticide exposure."

Genotoxicity

Genotoxicity is the ability of a pesticide to cause genetic damage – to actually damage the DNA. "Positive associations between pesticide exposure and elevated percent chromosome aberrations were found in 11 of 14 studies." The authors continue, "Pesticide exposure doubled the frequency of chromosome aberrations." These abnormalities could manifest as spontaneous abortion, birth defects, sperm abnormalities, or cancer risk.

Conclusions

The authors found that, "the most striking feature of the results of this systematic review is the consistency of evidence showing that pesticide exposure increases the risk of 3 non-cancer health effects: neurologic, reproductive, and genotoxic effects. The results are consistent with those of other reviews."

The Canadian Association of Physicians for the Environment as well as national pediatric and public health groups in Canada and the United States have expressed concern about the health effects from cosmetic pesticide use and have recommended physicians participate in efforts to reduce their use.

The authors conclude, "Then in our role as public and community health advocates, we need to educate the public about the health effects of pesticide use. We need to reinforce community efforts to reduce cosmetic use of pesticides that can disproportionately affect children, pregnant women, and elderly people."

SOURCE: Canadian Family Physician, October 2007

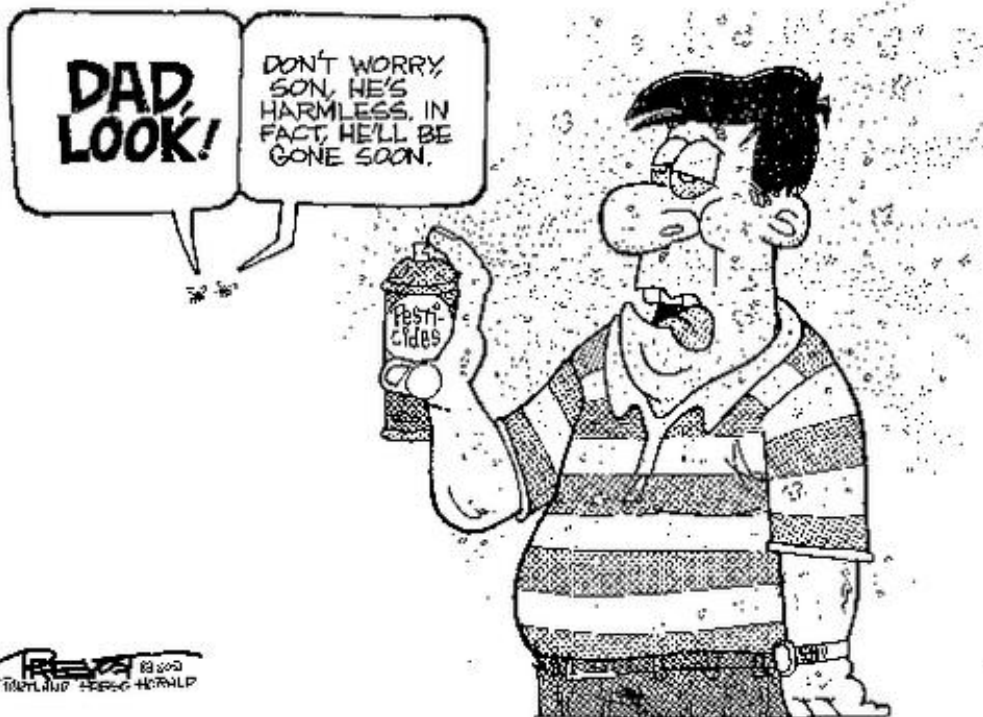
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EDITORIALS

Thursday, October 11, 2007



Morning Sentinel

Police Log

KENNEBEC JOURNAL *Morning Sentinel*

11/02/2007

WATERVILLE -- Two people, including a 31-month-old child, were treated for exposure to pesticides at Parkview Apartments on Elm Street Wednesday.

The child first was reported to have been unresponsive, but later was breathing and alert, according to the report.

A second victim, a man, also reported difficulty breathing.

A Fire Department official said the apartment house had been sprayed for insects earlier in the day.

Residents were cleared to re-enter the building.

EU pesticides package passes first key milestone

Tue Oct 23, 2007 2:29pm EDT

By Huw Jones

STRASBOURG, France (Reuters) - Spraying pesticides near schools or hospitals is set to be heavily controlled under a contested package of rules adopted by European Union lawmakers on Tuesday to safeguard health and food quality.

There would also be a general ban on aerial crop spraying, making it illegal in the 27-nation bloc to kill bugs using a method made famous by Alfred Hitchcock's movie "North by Northwest."

"This is something consumers want. They don't want poison on their plates, they don't want poison in their environment," said Green Party member Hiltrud Breyer.

The aim of the package proposed by the European Commission is to wean farmers, gardeners and the keepers of parks and forestry off pesticides.

Less harmful alternatives would be encouraged, with some products used today eventually being banned or used less.

Tuesday's first-reading vote in the European Parliament is not the last word, however.

EU member states also have to reach a common position with parliament before the package, which pits powerful agricultural and chemical industry lobbies against consumer and health advocates, can become law.

"It's something to build on," German centre-right lawmaker Christa Klass said.

The European Commission expects the package to end up banning 5 to 6 percent of pesticides currently used in the EU.

The bloc produces 230,000 tons of pesticide a year, a quarter of the world's total -- even though it is home to just 4 percent of arable land.

The main elements agreed by the EU assembly include:

- a general ban on aerial spraying with some exemptions such as in wine-growing areas
- heavy restrictions on using pesticides near schools, playgrounds, parks, recreation grounds and hospitals
- buffer zones set up to separate the usage or storage of pesticides from rivers, lakes and waterways
- the use of "active substances of very high concern" will have to be cut by at least half by 2013
- EU states would draw up national plans to identify crops or areas most at risk from pesticides
- a list of active substances or key ingredients of pesticides will be drawn up at EU level. New pesticides would then be authorized at national level using the list
- authorizations of products may include, in the "conditions of use," an obligation to warn any neighbors who could be exposed to spray drift before the product is used and who have asked to be informed.

Lawmakers threw out the Commission's plan to divide the EU into three zones for pesticide approvals.

An attempt to make it obligatory for farmers to inform neighbors in advance if they plan to spray with pesticides was also thrown out.

<http://www.latimes.com/news/nationworld/nation/la-na-ddt30sep30,0,3451847.story?coll=la-home-center>
From the Los Angeles Times

Study suggests DDT, breast cancer link

Exposure in childhood is key, quintupling the risk among women with high levels of the pesticide, researchers say.

By Marla Cone

Los Angeles Times Staff Writer

September 30, 2007

Women heavily exposed to the pesticide DDT during childhood are five times as likely to develop breast cancer, a new scientific study suggests.

For decades, scientists have tried to determine whether there is a connection between breast cancer and DDT, the most widely used insecticide in history. The UC Berkeley research, based on a small number of Bay Area women, tested a theory that the person's age during exposure was critical, and provided the first evidence of a substantial effect on breast cancer.

"There was very broad exposure to this pesticide, and with this study, we have evidence that women exposed when young were the most affected," said Barbara A. Cohn, director of UC Berkeley's Child Health and Development Studies, who led the study of 129 women. "If this finding holds up, those who were young and more highly exposed could be the women at greatest risk."

Women born between 1945 and 1965 were most likely to have been heavily exposed as children to DDT, which was sprayed throughout the United States to kill mosquitoes and other insects. DDT use began in 1945, peaked in 1959 and was banned nationwide in 1972 because it was building up in the environment.

"This does speak to a generation of us, the baby boomer generation," said Peggy Reynolds, an epidemiologist at the Northern California Cancer Center and consulting professor at Stanford University School of Medicine. She was not involved in the study.

"There's nothing we can do now about the exposures we may have had back then," Reynolds said. "But it's prudent to say that we should be mindful of the fact that we may have higher risks by virtue of those environmental exposures back then."

Because the pesticide was ubiquitous, the authors wrote, "the public health significance of DDT exposure in early life may be large."

If the early-exposure theory is true, breast cancer rates could rise as the DDT generation ages. Two-thirds of women with invasive breast cancer are 55 or older when they are diagnosed, according to the American Cancer Society.

"A single study doesn't necessarily translate into truth, if you will," Reynolds said. "But a study like this -- which has such dramatic and provocative findings, and is consistent with what we have suspected about early life exposures -- does call for careful examination of the results."

Several larger, earlier studies found no evidence that DDT caused breast cancer. The largest, a 2002 study involving more than 3,000 women in Long Island, N.Y., concluded that the breast cancer rate did not rise with increasing DDT levels in their blood. To some, that seemed to put the question to rest.

However, those studies were based on amounts found in the blood of middle-age and older women, after they had contracted cancer and decades after DDT was banned.

The new study looked for the first time at DDT concentrations in women when they were primarily in their 20s, closer to when their breasts developed and during a time of widespread spraying. The UC Berkeley team measured DDT in blood collected between 1959 and 1967 from 129 women who had just given birth in Kaiser Permanente hospitals in the Oakland area.

Their study, funded by the National Cancer Institute, will be published Monday in the October edition of the journal *Environmental Health Perspectives*.

The women in the top third of DDT concentrations who were exposed before age 14 were five times as likely to get breast cancer as the women with the lowest levels, according to the study. No relationship between cancer and the insecticide was found in the women born before 1931, who would have been older during any exposure.

The Berkeley study "is very compelling and important and addresses a question about timing of exposure that many of the existing studies could not address," said Mary Beth B. Terry, an associate professor of epidemiology at Columbia University's Mailman School of Public Health. She co-wrote the Long Island study.

"Their findings in general support their hypothesis that the earlier you were exposed, the stronger the effect," Terry said. "We think with organochlorines and other exposures, the timing may be more important in terms of breast cancer."

Scientists said the study was particularly important because the blood was drawn when DDT was still heavily used, so it offered a snapshot of women with levels an order of magnitude higher than today.

"It really turns back the clock in a very unique way," said Steven Stellman, a professor of clinical epidemiology at Columbia University who has studied DDT and breast cancer.

A fivefold increase in breast cancer -- 400% -- is considered very high. Most traditional risk factors, such as late menopause, obesity and older age at first pregnancy, increase risk by 50% to 100%.

However, because relatively few women were involved, the study is prone to statistical weakness, which may mean the result is partly attributable to chance, Stellman said.

Terry agreed: "Certainly if you have a larger study, the estimates you get are more stable. No one study can be definitive. It would be good to try to replicate the finding in another population of girls who were highly exposed."

But it is rare to find blood stored for 40 years, so replication would be difficult.

Exposure to DDT for the Bay Area women was probably no more extensive than elsewhere in the country at the time. Most of the 129 women did not live on farms, so they would have been exposed through food or urban spraying.

DDT is prohibited today in most of the world, though it is used in small volumes in some malaria-plagued African nations.

But virtually everyone on the planet still carries residue because the pesticide persists in the environment and in tissues, breaking down slowly.

Many environmental toxicologists and epidemiologists have in recent years altered their thinking about toxic exposures. They used to focus on lifetime exposure. But now they suspect that chemicals may activate genes or damage DNA in the womb or during early childhood, resulting in diseases decades later.

Other evidence suggests that breast cancer can be triggered early in life. In lab animals, prenatal doses of chemicals can trigger cancerous cells in fetal mammary glands. Also, Japanese females who were younger than 20 in 1945 developed the highest breast cancer rates among those exposed to radiation from the atomic bombs.

The new study does not indicate the age of greatest vulnerability to exposure. Breast development is most critical in the womb and at puberty.

Whether or not DDT promotes breast cancer, there are many other risk factors, including alcohol consumption, hormone therapy and age at menstruation.

The known risk factors are believed responsible for up to half of cases.

"We truly believe it's not one exposure that's going to determine whether you get breast cancer or don't get breast cancer," Reynolds said.

"While it's true that our generation may be more at risk from those exposures, there are a whole lot of other things involved too."

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Chemical generation

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Punjabis are poisoning themselves

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IF INDIAN newspaper reports are to be believed, the children of Punjab are in the throes of a grey revolution. Even those as young as ten are sprouting tufts of white and grey hair. Some are going blind. In Punjabi villages, children and adults are afflicted by uncommon cancers.

The reason is massive and unregulated use of pesticides and other agricultural chemicals in India's most intensively farmed state. According to an environmental report by Punjab's government, the modest-sized state accounts for 17% of India's total pesticide use. The state's water, people, animals, milk and agricultural produce are all poisoned with the stuff.

Ignorance is part of the problem. The report includes details of a survey suggesting that nearly one-third of Punjabi farmers were unaware that pesticides come with instructions for use. Half of the farmers ignored these instructions. Three-quarters put empty pesticide containers to domestic uses.

Yet, over 250 dense pages, the report also reveals structural problems in the state's agricultural sector that no mere education programme could address.

Punjab was the totemic success of India's green revolution, a leap forward in agricultural productivity during the 1960s and 1970s that ended the subcontinent's periodic famines. It was based on the introduction of a few simple technologies—including artificial fertilisers, pesticides and better seeds. In Punjab, especially, the benefits were massive.

Between 1960 and 2005 the state's annual food-grain production increased from 3m tonnes to 25m tonnes. Punjab, one of India's richest states on a per capita basis, supplies more than half the country's central grain reserves.

But the successes of the green revolution are in retreat. Punjab's agricultural growth rate has slowed from 5% in the 1980s to less than 2% since 2000. In the past five years production of food grains has increased by 2%, and the state's population has grown by 8.6%.

AP



What price bounty?

“Punjab, the most stunning example of the green revolution in India, is now at the crossroads,” the report states. “The present agricultural system in Punjab has become unsustainable and non-profitable... the state’s agriculture has reached the highest production levels possible under the available technologies.”

Indeed, the technologies available to farmers are part of the problem: “Over-intensification of agriculture over the years has led to overall degradation of the fragile agro-ecosystem of the state”

In particular, massive use of nitrogenous fertilisers—which draw multiple crops from Punjab’s rather poor soil—has reduced the soil’s overall fertility and led to widespread soil erosion.

Massive application of pesticides has meanwhile extinguished some pests and insects while letting others thrive, including the American bollworm, an unpleasant cotton blight, and rice-leaf folder. Many of these survivors have developed resistance to common pesticides.

Intensive irrigation—especially from tube-wells, of which there are over a million in Punjab—has depleted the water-table. It dropped by 55cm each year between 1993 and 2003. Partly as a result, the land irrigated by canals has decreased by 35% since 1990.

Use of sewage and industrially contaminated water for irrigation has drenched Punjab’s soils in heavy metals and other poisons.

The state’s government is not entirely passive before this catastrophe. It has banned the use of several agricultural chemicals. And it has taken steps to encourage organic farming. But there is much more it could do.

In particular, it needs to scrap its populist policy—reintroduced in 2005—of providing farmers with free electricity. Though a great vote-grabber, the policy encourages farmers to pump water up from their tube-wells both day and night.

Equally disastrous is a subsidy on agricultural fertilisers, for which India’s central government is responsible. There is little hope of turning Indian farmers greener until both subsidies are ended.

Meanwhile, the report by Punjab’s government encourages farmers to alleviate the twin crises of environmental degradation and falling productivity by returning to traditional practices.

It recommends they use rice and wheat straw for mulch instead of burning it, rotate their crops, use a range of different seeds, manure their fields, and so on. In short, it recommends many of the agricultural practices that the green revolution swept away.

PESTICIDES: New York launches initiative to minimize pest poisons

Nathaniel Gronewold, special to E&ENews PM

NEW YORK -- Officials at the nation's largest municipal health department announced plans today to minimize use of poison for killing cockroaches, rodents and other pests.

The Department of Health and Mental Hygiene (DOHMH) is pushing all city agencies to adopt integrated pest management (IPM), a catch-phrase for minimizing public-health harm from pest control.

And with some success in centralizing reporting requirements and improving city government practices, the agency will try to extend its influence over the private sector, a more daunting task.

At issue: the human health toll of the city's battle against rats and roaches.

Every year the city experiences several hundred cases of poisonings and harmful exposure, with about 50 people requiring hospitalization.

Victims are typically children of low-income families.

"We've been really trying to put the health impact of pest and unsafe pesticide use really central to this activity, and it's put us in a position where we've been able to use health to drive a better policy around pest control and pesticide use," said Daniel Kass, head of the health department's IPM initiative.

In a teleconference with more than 80 participants in public and private pest management programs throughout the nation, Kass and others explained what the department is doing to improve practices here and perhaps provide lessons for other cities.

The department's main goal has been to enhance controls on banned pesticides, improve reporting, and focus extermination campaigns in areas most at need through better monitoring of infestation problems, thereby hopefully reducing the number of residents sickened, in particular children.

Recent campaigns have heavily focused on those parts of the city reporting high instances of asthma, strongly correlating with pest infestation and poor building maintenance, particularly in Spanish Harlem and the South Bronx.

Laws, EPA grant spurred effort

Behind the department's push are two municipal laws passed in May 2005

-- Local Laws 36 and 37.

Local Law 36 adopts the state's neighborhood notification law, requiring residents to notify their neighbors 24 hours before they apply lawn care pesticides. The department admits this law's impact is small since there are so few lawns in the city.

That is why the agency is focusing on Local Law 37, which regulates pesticide use by city agencies. It sets guidelines for and phases out the most harmful pesticides, and it sets new reporting requirements to improve monitoring of pesticide use.

"Under the prohibitions we chose to do three categories of pesticides, and we began phasing these out over an 18 month period after the law was passed in 2005," the health department's Sharon Heath said. "This was done in November 2006, and each year since we've had to have a running list of the pesticide use on city properties to see if any of these pesticides were added or removed."

The department initially became active through a U.S. EPA grant that provided seed money for a demonstration project that was later expanded into a citywide initiative focusing on the housing authority, which manages properties sheltering over 500,000 New Yorkers.

"We figured if we could demonstrate the utility of a better approach to pest management there ... we would influence policy for a huge segment of the low-income housing in New York City," Kass said.

Over the next few years the department expanded its data gathering and monitoring. The effort involved careful attention to pesticide use data, thanks largely to New York State's pesticide-use registry.

The health department is also helped because it includes the city's poison control center, which gives them better access to data on poisoning and harmful exposure cases. That information, coupled with emergency room and hospitalization data, provides a clear picture of which products to single out.

The information they have assembled bears out departmental fears that abundant and sloppy use of pesticides is taking a toll on residents, in addition to the already negative health consequences of living with rats and roaches.

Exterminator licensing

Last week the New York City Council passed an amendment to Local Law 37 to change how pesticide use is reported by having all city agencies report directly to the health department. This is expected to strengthen the department's hand in its dealing with multiple public agencies often resistant to change.

The health department is also responsible for designing and reporting on city-wide IPM initiatives and pesticide control efforts. "We are in the process now of preparing for a 2007 report," which they will present directly to the City Council and Mayor Michael Bloomberg's office, said Heath.

But the main challenge remains reigning in the relatively chaotic practices of the private sector.

New York City has over 4,500 licensed pesticide applicators and about 1,000 pesticide applying businesses. The health department said the marketplace is plagued by problems stemming from this intense competition, in particular minimum bid issues and lax certification. As a result, the city suffers from a "vast and disproportionate use of commercial pesticides," Kass said.

The department has very little control over the private sector but that hasn't stopped it from trying. Attempts so far have involved education initiatives, including "rodent academies" funded by the Centers for Disease Control. These are three-day courses for private exterminators to encourage them to adopt better practices and the use of less harmful pesticides.

And the department's current IPM training courses for city workers will be offered to private pest control professionals starting this year.

The department is also trying to improve city contracting practices to encourage agencies to make use of IPM services and more health-friendly private extermination service providers, thereby fostering change in the industry as a whole. But DOHMH officials admit that this is a lofty goal.

"Frankly, it remains to be seen how well that works," Kass said.