



JOHN ELIAS BALDACCI
GOVERNOR

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, FOOD AND RURAL RESOURCES
BOARD OF PESTICIDES CONTROL
28 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0028

SETH H. BRADSTREET III
COMMISSIONER

HENRY JENNINGS
DIRECTOR

MEDIA ALERT

For Immediate Release
Date: July 19, 2010

Contact: Paul Schlein, 287-7533
paul.b.schlein@maine.gov

PESTICIDE BOARD SEEKS INPUT ON COMPREHENSIVE PESTICIDE NOTIFICATION REGISTRY

- WHO:** Maine Board of Pesticides Control
- WHAT:** Public Information Gathering Meeting about Development of a Comprehensive Pesticide Notification Registry
- WHEN:** Friday, July 23, 2010, 9:30 AM
- WHERE:** Howard Johnson Plaza, Kennebec Room, 155 Riverside Street, Portland
- DETAILS:** The Maine Board of Pesticides Control (BPC) is seeking input from interested parties about the development of a comprehensive pesticide notification registry. A recent law enacted by the Maine Legislature (Public Law 2009, Chapter 584, LD 1547) requires the BPC to develop the comprehensive registry, and incorporate the two current notification registries maintained by the Board into a single list of individuals seeking advance notice of outdoor pesticide applications. Specifically, the Board is seeking input on:
- The scope and operation of a comprehensive registry
 - The types of applications and equipment to be included under the registry
 - The appropriate distances from a spray site for determining whether neighbors qualify for notification
 - The feasibility and advisability of requiring land managers to post signs on properties where pesticides are applied
 - The feasibility of developing an automated, Internet-based system for land managers to use in notifying registry participants

Written comments on the development of the comprehensive notification registry may be e-mailed to henry.jennings@maine.gov, or mailed to the Maine Board of Pesticides Control at 28 State House Station, Augusta, ME 04333-0028.

The Maine Board of Pesticides Control is the lead state agency for pesticide regulation. An administrative unit of the Maine Department of Agriculture, Food and Rural Resources, policy decisions are made by a seven-member, public board.

###



» [News](#) » [Maine Headline News](#)

Hearing on Pesticide Notification Scheduled for Portland

07/19/2010 04:27 PM ET

The hearing is one of a series the state is holding, aimed at developing a comprehensive pesticide notification registry.

The Maine Board of Pesticides Control is holding the fourth in a series of hearings aimed at developing a comprehensive pesticide notification registry. The hearing will be held Friday in Portland.

Under a law passed this session by the Maine Legislature, the board has to incorporate the two current notification registries maintained by the Board into a single list of individuals seeking advance notice of outdoor pesticide applications.

BPC spokesman Paul Schlein says one of the current registries deals with agricultural spraying. "There's also another registry which we have which relates more to urban or suburban spraying, relating to perhaps lawn care or pest control things around the house, also outdoor."

Schlein says the public hearing is open to anyone.

[← Return!](#)

The Pesticide Control Board vs. Upset Citizens

by Nancy Oden

Tweaking a rule around notifying people when pesticide poisons are going to be sprayed near their homes or organic farms was a contentious topic at UMM recently.

The Pesticide Control Board (PCB) held "information gathering" sessions where citizens and spraying growers got to speak their minds.

The PCB heard from growers who think telling neighbors when they're going to spray is "burdensome," and from citizens who don't want any poisons sprayed near their homes or organic farms.

Notification does not stop the pesticide spraying; people currently have no way to stop the spraying. Several citizens pointed out that telling them (notification) was useless since they would still get sprayed.

A side issue which became a major topic was the ad the PCB had inserted into many Maine newspapers giving session schedules with a line drawing of a spray plane.

John Olsen of the Maine Farm Bureau (Augusta) said some farmers who spray pesticides were "deeply offended and insulted" and "greatly upset" by the ad. (Why they were insulted by the simple, truthful ad was not explained.)

Olsen suggested that instead of a spray plane, there should have been a picture of a happy farm family sitting at a picnic table holding a beautiful basket of fruit. Further, he added that the ad should have stated that farmers were spraying food crops with pesticides to protect the public health. Laughter ensued.

A citizen popped up and asked, "Do you think local people don't know we're being sprayed

with pesticides? We can see them from our windows."

Another citizen added, "Instead of picturing a happy family with a fruit basket, the picture should be of a Washington County citizen dying of cancer from blueberry growers' pesticides."

Discussion on the ad was lengthy, with Ragnar Kamp of Cherryfield Foods suggesting that Henry Jennings, staff director of the PCB, should resign because of the airplane picture. This was not considered serious, and the discussion moved on.

One board member, Thomas Qualey, a potato farmer from Aroostook, was, he said, "deeply offended" by organic farmers and local citizens pointing out the damage pesticides do to people and other living things.

The first day, he angrily addressed citizens describing why they don't want to be sprayed with poisons, saying, "Why come to us with your problems? Solve them amongst yourselves, don't bother us!"

People burst out asking what was the point of the PCB if we're to solve our own problems with pesticides?

The second day, board member Qualey again erupted and shouted at people, "Protect yourselves, this isn't a risk-free world. Don't bother us - work it out with your neighbor who sprays." To which a citizen responded, "We're trying to protect ourselves from YOU!"

A citizen from Jonesboro told of property just 50 feet from his family's home being sprayed, and that he's been notified that Morrill Worcester (Worcester Wreaths)

was planning to spray again using a helicopter.

Since then, in response to this citizen's talking with the helicopter pilot, Morrill Worcester, and several state officials, the helicopter was backed off a bit farther, but they still got pesticide drifted onto their land.

The new Rail Trail, used by people on horseback, hikers, bicycle riders, ATVs and snowmobiles, is also in the line of fire of Worcester's pesticide spraying.

Dept. of Conservation's trail manager, Charlie Cortiss, was "incensed" to learn that Worcester was going to spray near or on the trail. However, the Dept. of Conservation itself plans to spray herbicides on the trail to kill grasses, which easily could be removed by hand. Citizens made suggestions to the PCB, encouraging them to help chemical-dependent growers transition to sustainable/organic agriculture. This was seen as the only way to protect people and their property from the poison spray.

Importantly, several citizens noted that the PCB was only discussing agricultural spraying, not the rest of pesticide spraying that goes on in Maine.

Lawn "care" spraying, DOT roadside spraying, pesticide spraying in schools, apartment buildings, hospitals, nursing homes, many public buildings, railroads, golf courses, state-run trails, forests of Maine, fumigation of buildings, and other pesticide poison spraying does not currently require notification - unless people are among a very tiny sector, and even that doesn't guarantee notification.

As stated in the meeting by several citizens, when people are

told a week ahead of time that they may be sprayed within the next week, what can they do to protect themselves? "Little or nothing," was the answer.

Growers from Waldo and Aroostook counties indicated that pesticide spraying wasn't seen as much of a problem in their areas as it is in Washington County. The citizen response was that perhaps because we live in the midst of the sprayed blueberry fields, we get more exposure, and are, therefore, more concerned than people from other areas.

The PCB has, as part of its mission, a legislative rule to discourage the use of pesticides insofar as possible, but has no plans to actually undertake such a project.

During the PCB's regular meeting, held immediately after the "information sessions," the Maine Dept. of Transportation asked for, as they do every year, an exemption from the law that says no one shall contaminate Maine's waters with toxic substances.

While the PCB expressed disapproval of DOT's spraying positions into Maine's waters, they gave them, as they have every year, permission to break the law by spraying into any and all bodies of water along their path.

The PCB was asked to look into this practice and stop giving DOT permission to break Maine's laws that forbid contaminating Maine's waters.

None of the PCB members are from Washington County. Only four of the seven board members came to the meetings. Missing were the board's commercial pesticide sprayer (yes, he does get to vote on matters that affect pesticide

sprayers), their "environmental expert" member, and their Southern Maine professor member didn't attend.

The notification list that currently exists is closed for this year, even though more and very dangerous chemicals have yet to be sprayed on so-called "wild" blueberries.

You can sign up to be notified next year by either calling the Pesticide Control Board at 287-2731, or by going to the website www.thinkfirstspraylast.org and filling out the notification form. Do it now and there is still a chance the PCB will give your name to growers for notification prior to spraying.

If you see obvious illegal spraying or drifting of pesticides by any grower/sprayer, call the PCB at 287-2731, although growers have chosen to do much of their spraying on weekends when staff at the Pesticide Control Board cannot be reached.

People can attend the annual Blueberry Growers' meeting at the Blueberry Hill experimental Farm in Jonesboro. This public facility, paid for by tax dollars, is part of UMO's Extension field work. Growers from Maine, VT, NH, NB, PEI, and Quebec gather to socialize and discuss the newest pesticides and machines.

You can stand up and ask a question or make a brief comment during the morning session, which begins around 9:30 a.m. on Wednesday, July 21.

Nancy Oden can be reached at 434-6228 or [cleanearth@accadia.net](mailto:cleaneearth@accadia.net).



» Home

Maine Towns Restrict Lawn Chemicals

07/30/2010 05:30 PM ET Reported By: [Josie Huang](#)

About two dozen communities have adopted some kind of pesticide limits, including Ogunquit, Brunswick, Castine and Harpswell.

Related Media

Pesticides a Growing Concern

Originally Aired: 7/30/2010 5:30 PM



Duration:
5:55

In the southern coastal community of Ogunquit, local conservationist Bob Joyner walks through the town common, and surveys the grass. And it couldn't look better to him.

"I see some weeds growing up here or there, just different type of grass -- see the dark green versus the lighter green, and you see a little clover popping up here," Joyner pointed out. "This is an example of greenery and shrubbery that has no pesticides or chemical fertilizers on it."



Ogunquit is among the growing number of Maine towns that are restricting the use of lawn chemicals from municipal property because of environmental and public health concerns. About two dozen other communities have adopted some form of pesticide limits, including Brunswick, Castine and Harpswell.

"They tend to have wealthier residents that do more lawn care," said Gary Fish. He manages pesticide programs for the state Board of Pesticides Control, and he sees common traits among the towns that are limiting pesticides.

"They also probably have the greatest frequency of lawn care companies that may be coming in and doing applications, so people see it happening as opposed to the homeowners themselves doing applications which isn't quite as noticeable," said Fish. "I definitely feel a number of the towns are concerned about water contamination and the potential for the effects on aquatic life."

It's no coincidence that many of the towns who've taken action against pesticides are coastal. Residents are reminded everyday of where the pesticide run-off goes.

Over on the popular walking path in Ogunquit called Marginal Way, visitors and residents, alike, can watch terns dive into the ocean for fish.



"They're only here because the water hasn't been totally destroyed and there's still fish," said Mike Horn.

He serves as the chair of Ogunquit's Conservation Commission and he guided the pesticide restriction to passage at last year's town meeting. Horn is worried about lawn chemicals such as phosphorous and nitrogen trickling downhill during rain.

"What is going to happen if this level of pesticides just continues to rise and people's lawns are just running, you're just putting a big nail in Mother's nature's foot," said Horn. He added that by protecting the environment, the town is also protecting its economy.

"If the pollution gets so bad -- and thank god it hasn't happened - then we close the beach up, there goes our revenue, there goes our reputation, everything we built, and consequently, there goes our source of revenue, there goes everything," said Horn. "We don't have any commercial diversity here outside of tourism --that's not a great thing to say but that's where we're at, right?"

But a trade group for lawn care specialists say that towns can actually create problems for themselves by not using pesticides.

Tom Delaney, director of government affairs for the Professional Landcare Network, or PLANET, says that pesticide-free property needs more mowing and weed pulling. Slacking off, he says, could lead to hazards.

"Additional pollen, additional types of blooms that attract bees and if they don't keep up maintenance," said Delaney. "Sometimes the weeds and things can get to the size where they impede people being able to see around corners and stuff, and it also creates the feeling that if they're not maintained properly, that people don't care about it and it could encourage people to throw trash around and do other things."

Delaney acknowledges however, that lawn chemicals can have an effect on marine life, and that the trade group discourages the overuse of pesticides. He urges property owners to consult with their local university cooperative extension and professionals for ways to reduce runoff from pesticide applications.

"If it's not made properly, if it's made to soil, that is somewhat bare and on a slope, if some of the product gets on an impervious surface like pavement, there is certainly the possibility of pesticides and nutrients running off into water bodies," said Delaney.

Many Maine property owners appear comfortable with this risk. Mainers spread more than 6.2 million pounds of pesticides and fertilizers in 2007, the most recent year of data from the board of pesticide control. That's up from 800,000 pounds in 1995.



Pesticide opponents praise towns for cutting back on pesticide use but say that a ban on private use would make a bigger difference.

"Nobody has tried to ban it on private property yet," said Paul Tukey, a former lawn care specialist who got out of the business when he says he got sick from the pesticides. As the founder of safelawns.org, he's watched various Canadian provinces carry out pesticide bans on public and private property.

"Because of our constitution, it's ridiculously difficult to take away homeowner's rights-- unless we ban the product outright. Then it's not a homeowner property rights issue any more," said Tukey.

Tukey has been bringing his message to various towns around Maine, by showing his documentary film "A Chemical Reaction," which chronicles Canadian's fight with the pesticide industry.

After a showing in South Portland, city councilor Rosemarie DeAngelis says she was interested in a citywide ban on pesticides, but recognizing the challenges of that, she wanted to reduce the use of pesticides on city property.

"I believe there's some use of synthetics in some parks and other open spaces. so I'd like to start by having the city in its practices be completely synthetic-free," said DeAngelis.

And from there, DeAngelis says she would like to start a grassroots campaign to get residents to voluntarily stop using pesticides on their lawns.



Beyond Pesticides Daily News Blog

Beyond Pesticides Website

- » [Beyond Pesticides' Homepage](#)
- » [BP on Facebook](#)
- » [BP on Twitter](#)
- » [Campaign/Activist Tools](#)
- » [Donate/Join](#)
- » [Information/Factsheets](#)
- » [Shop Beyond Pesticides](#)

Archives

Categories

- » [Agriculture](#) (21)
- » [Alternatives/Organics](#) (186)
- » [Announcements](#) (48)
- » [Antibacterial](#) (33)
- » [Biofuels](#) (4)
- » [Biomonitoring](#) (5)
- » [▶ Chemicals](#) (751)
- » [Children/Schools](#) (98)
- » [Climate Change](#) (15)
- » [▶ Corporations](#) (158)
- » [▶ Disease/Health Effects](#) (226)
- » [Environmental Justice](#) (28)
- » [Events](#) (25)
- » [Farmworkers](#) (23)
- » [Genetic Engineering](#) (63)
- » [Golf](#) (7)
- » [Health care](#) (4)
- » [International](#) (105)
- » [Invasive Species](#) (4)
- » [Label Claims](#) (4)
- » [Lawns/Landscapes](#) (69)
- » [Litigation](#) (47)
- » [Nanotechnology](#) (15)
- » [National Politics](#) (46)
- » [organophosphate](#) (1)
- » [Pesticide Drift](#) (13)
- » [Pesticide Regulation](#) (203)
- » [▶ Pests](#) (51)
- » [Pets](#) (7)
- » [Pollinators](#) (16)
- »

« [Risk Assessment Flaw Downplays Insecticide's Link to Bee Kills](#)
[Utility Sprays Right-of-Way and Nearly Kills Centuries-Old Grape Vine](#) »

Maine Towns Restrict Lawn Chemicals

04
Aug

(*Beyond Pesticides*, August 4, 2010) Several coastal towns in Maine, concerned about water contamination and the potential for the effects on aquatic life, have adopted restrictions on lawn chemicals. Pesticide opponents praise towns for cutting back on pesticide use but say that a ban on private use would make a bigger difference.

Ogunquit is among the growing number of Maine towns that are restricting the use of lawn chemicals from municipal property because of



environmental and public health concerns. About two dozen other communities have adopted some form of pesticide limits, including Brunswick, Castine and Harpswell. There are common traits among the towns that are limiting pesticides. They tend to have affluent residents that do more lawn care applications employing lawn care companies. Mike Horn, chair of Ogunquit's Conservation Commission, helped to guide the pesticide restriction to passage at last year's town meeting. Mr. Horn is worried about lawn chemicals such as phosphorous and nitrogen running downhill during rain. "What is going to happen if this level of pesticides just continues to rise and people's lawns are just running, you're just putting a big nail in Mother's nature's foot," said Mr. Horn. He added that by protecting the environment, the town is also protecting its economy.

Using the Blog

- » [About the Daily News Blog](#)
- » [How to comment](#)
- » [Submit a story or topic](#)

Recent Comments

- » [Gladys](#) on [Lawsuit Seeks Timeline for FDA Action on Antibacterial Pesticide Triclosan](#)
- » [brandy](#) on [EPA To Elevate Environmental Justice in Its Rulemaking](#)
- » [James](#) on [Indian Court Finds Eight Guilty for 1984 Union Carbide Gas Disaster](#)

Admin / Feeds

- » [Log in](#)
- » [Entries RSS](#)
- » [Comments RSS](#)
- » [WordPress.org](#)

[Resistance](#) (10)

▣▣ ▶ [State/Local](#) (308)

▣▣ [Uncategorized](#) (20)

▣▣ [Water](#) (113)

▣▣ [Wildlife/Endangered Sp.](#)
(72)

▣▣ [Wood Preservatives](#) (10)

“If the pollution gets so bad then we close the beach up, there goes our revenue, there goes our reputation, everything we built, and consequently, there goes our source of revenue, there goes everything,” said Mr. Horn. “We don’t have any commercial diversity here outside of tourism –that’s not a great thing to say but that’s where we’re at, right?”

However, while some local communities have made the step to restrict pesticides, many Maine property owners appear comfortable using lawn care chemicals. Maine residents spread more than 6.2 million pounds of pesticides and fertilizers in 2007, the most recent year of data from the board of pesticide control. That is up from 800,000 pounds in 1995.

Paul Tukey, founder of [safelawns.org](#), has been spreading the message to various towns around Maine, by showing his documentary film “A Chemical Reaction,” which chronicles Canadian’s fight with the pesticide industry. City councilor Rosemarie DeAngelis, after viewing the film, said she was interested in a citywide ban on pesticides, but recognizing the challenges of that, she wanted to reduce the use of pesticides on city property. Ms. DeAngelis also said she would like to start a grassroots campaign to get residents to voluntarily stop using pesticides on their lawns.

The adoption of pesticide-free and pesticide reduction policies have been gaining momentum across the country. Other examples include: **New York State Parks**; **Chicago City Parks**; 29 communities and townships in **New Jersey**; at least 17 cities in the Northwest covering more than **50 parks**; and, numerous communities throughout Massachusetts, Maine and Connecticut. This is just the tip of the iceberg, as new policies and programs are continually being implemented by local and state government entities as well as schools and homeowner associations.

Eliminating toxic pesticides is important in lawn and landscape management, considering that of the **30 most commonly used lawn pesticides**: 14 are probable or possible carcinogens, 13 are linked with birth defects, 21 with reproductive effects, 15 with neurotoxicity, 26 with liver or kidney damage, and 27 are sensitizers and/or irritants. The most popular and widely used lawn chemical **2,4-D**, which kills broad leaf weeds like dandelions, is an endocrine disruptor with predicted human health risks ranging from changes in estrogen and testosterone levels, thyroid problems, prostate cancer and reproductive abnormalities. 2,4-D has also been linked to non-Hodgkin’s lymphoma. Other lawn

chemicals like **glyphosate** (RoundUp) have also been linked to serious adverse chronic effects in humans. **Imidacloprid**, another pesticide growing in popularity, has been implicated in bee toxicity and the recent Colony Collapse Disorder (CCD) phenomena.

TAKE ACTION: Community activism is the best way to get your town to adopt such a policy. For assistance in proposing a policy to your city council (or its equivalent), contact Beyond Pesticides at info@beyondpesticides.org or 202-543-5450. For more information on being a part of the growing organic lawn care movement, see Beyond Pesticides **Lawns and Landscapes** program page. Let your neighbors know your lawn and garden are organic by displaying a **Pesticide Free Zone sign**.

[+](#) Share / Save [↕](#)

This entry was posted on Wednesday, August 4th, 2010 at 12:44 am and is filed under Lawns/Landscapes, Maine. You can follow any responses to this entry through the RSS 2.0 feed. You can skip to the end and leave a response. Pinging is currently not allowed.

Leave a Reply


Name (required)

Mail (will not be published)
(required)

Website

Submit Comment

Beyond Pesticides Daily News Blog is proudly powered by **WordPress**
Navigation Theme by **GPS Gazette**

 [Click to Print](#)[SAVE THIS](#) | [EMAIL THIS](#) | [Close](#)

AUGUSTA

Posted: 12:00 AM

[Council to review herbicide spraying policy](#)

City staffers want to lift ban, sought by environmentalists

By [Keith Edwards](mailto:KeithEdwards@centralmaine.com)[kedwards@centralmaine.com](mailto:KeithEdwards@centralmaine.com)

Staff Writer

AUGUSTA -- A dispute has taken root about how to get rid of weeds in city parks, athletic fields, cemeteries, walking trails, streets and sidewalks.

In September last year, a small group of residents told city officials they worried that the herbicide the city uses to help kill weeds could be harmful to people and pets. They asked the city to look into potential health effects.

Residents said they had seen research indicating herbicides can cause genetic and reproductive problems in humans.

In response, the city agreed to suspend the use of herbicides -- including glyphosate-based products such as Roundup -- and ask a state toxicologist to look into the safety of the products the city uses.

Thursday, at an informational meeting, councilors will discuss the city's "vegetative management plan and herbicide spraying," in light of a request from city department heads that the ban be lifted.

In a memorandum to councilors, Jim Goulet, director of parks, cemeteries and trees, and John Charest, public works director, said not being able to use herbicides as part of the city's overall plant management plan makes parts of the city appear unsightly. They warn that, if left unchecked, the weeds could have a destructive effect on the city's infrastructure.

They also said several city parks employees recently suffered from acute exposure to poison ivy while using mowers and other mechanic methods to remove weeds.

"To date, there is no environmental, economically feasible and safe (right of way) vegetation management plan which eliminates the use of herbicide altogether," Goulet and Charest said in the memo. "Many of the species growing in the (right of way) thrive under adverse conditions; many are invasive and persistent and cannot be adequately controlled without chemical treatment. Poison ivy in particular is not only invasive and persistent, but poses a potential health hazard to mechanical equipment operators, as well as the general public."

The city received a partial response to its inquiry about the safety of herbicides from Lebel Hicks, a www.printthis.clickability.com/pt/cpt?a...

toxicologist with the state Board of Pesticides Control, in a July 15 letter.

She said she plans to have her findings reviewed by her peers on a committee which will recommend, to the Board of Pesticides Control, whether to take regulatory action regarding glyphosate-based herbicides.

However, she said that, in her review of existing studies and literature on herbicides, she has "not found sufficient negative effects to warrant regulatory action on the part of the board."

Councilors will discuss herbicide spraying at their meeting at 6:30 p.m. Thursday in council chambers at Augusta City Center.


Councilors also are scheduled to discuss waste relocation at Hatch Hill landfill and an expression of interest from a man interested in purchasing the Northern Avenue fire station.

Keith Edwards -- 621-5647

kedwards@centralmaine.com


Find this article at:

http://www.kjonline.com/news/council-to-review-herbicide-spraying-policy_2010-07-20.html?searchterm=roundup

 [Click to Print](#)

[SAVE THIS](#) | [EMAIL THIS](#) | [Close](#)

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

 Click to Print[SAVE THIS](#) | [EMAIL THIS](#) | [Close](#)

AUGUSTA

July 23

Council hears herbicide beefs

City residents cite health concerns; city officials say weeds cause damage

By [Keith Edwards](mailto:KeithEdwards@centralmaine.com)
Staff Writer

AUGUSTA — City councilors appear to be seeking balance between concerns herbicides are putting residents' health at risk and the need to prevent weeds from damaging sidewalks and other public areas.

Residents who worry that the herbicides the city uses to kill weeds could also be harming humans urged the councilors Thursday to put citizens' safety first and limit them as much as possible, not use them near schools, and stop dragging their feet and look further into research done on their hazards.

"These are toxins, and toxins are deadly," said Susanne Hawkins, a registered nurse and resident of the Mayfair neighborhood. "And deadly is deadly."

Hawkins said numerous studies have shown substances such as the commonly used glyphosate, an ingredient in many herbicides such as Roundup, may cause different types of cancer, genetic and reproductive system problems "and all kinds of nasty stuff."

Meanwhile city department heads responsible for maintaining the city's streets, sidewalks, parks, ballfields and playgrounds urged councilors to lift a moratorium on herbicide use in the city instituted late last year after residents first raised the issue.

Jim Goulet, director of parks, cemeteries and trees, and John Charest, public works director, said not using herbicides as part of the city's plant management plan makes parts of the city appear unsightly. They warn that, if left unchecked, the weeds could have a destructive effect on the city's infrastructure. They said herbicides are just one way, but an important one, that the city controls weeds.

They also said several city parks employees recently suffered from acute exposure to poison ivy while using mowers and other mechanic methods to remove weeds.

Charest said he is "ashamed" at the appearance of city sidewalks this year.

But appearance is hardly their only concern.

“If we went three to five years without any roadside spraying to get rid of these weeds, we’re going to have some major destruction of blacktop,” Goulet said. “Costs could rise to more than \$500,000. That’s far more costly than having a good roadside vegetation management program.”

Goulet said organic products to control weeds require multiple applications and are up to 10 times more expensive than the glyphosate-based synthetic products.

Mary Owen, president of the West Side Neighbors, a residential group, noted major cities in Canada have adopted rules against the use of pesticides, as have Castine and Camden in Maine.

She suggested the city: Restrict the use of herbicide except in situations that pose an imminent threat to property, people or agriculture; ban herbicide use at the city’s schools; and form a committee to study the issue.

The city received, in a July 15 letter, a delayed, incomplete response to its inquiry, last fall, about the safety of herbicides from Lebel Hicks, a toxicologist with the state Board of Pesticides Control.

Hicks said she plans to have her findings reviewed by a committee of her peers, which will recommend, to the Board of Pesticides Control, whether to take regulatory action regarding glyphosate-based herbicides. She said, however, she has "not found sufficient negative effects to warrant regulatory action on the part of the board."

Hawkins chastised councilors for not taking action and waiting for Hicks’ findings.


Councilor David Rollins said councilors have listened to Hawkins and others’ concerns but acknowledged they haven’t been proactive.

“We have been sitting back,” Rollins said. “I, personally, apologize to you and the community that we aren’t down the road with this.”

Keith Edwards — 621-5647
kedwards@centralmaine.com

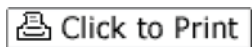
Find this article at:

<http://www.kjonline.com/news/Council-hears-herbicide-beefs.html>

 [Click to Print](#)

[SAVE THIS](#) | [EMAIL THIS](#) | [Close](#)

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



DESPITE SOME RESIDENTS' CONCERNS

Posted: August 5

Updated: Today at 11:13 PM

[Augusta to resume some herbicide spraying](#)

Limited spraying program for the rest of the summer

By [Keith Edwards](mailto:Keith.Edwards@centralmaine.com)[kedwards@centralmaine.com](mailto:Keith.Edwards@centralmaine.com)

Staff Writer

AUGUSTA -- The city is about to restart limited herbicide spraying despite some residents' concerns the chemicals could harm people.

City Manager William Bridgeo is authorizing a limited spraying program for the rest of the summer, after the city staff expressed concerns that letting weeds grow unchecked could cause costly damage to city streets, sidewalks and parks and expose workers and the public to poison ivy and other hazards.

The city's herbicide program had been suspended this summer after residents had approached councilors with worries that spraying could harm the health of adults, children and pets.

The program could be restarted on a limited basis as soon as Friday.

Bridgeo said spraying will be limited to the city's major arterial streets and sidewalks, parks and areas such as the Kennebec River Rail Trail. Streets and sidewalks in residential neighborhoods will not be sprayed, Bridgeo said.

Among the areas that will be sprayed: a ropes course near Cony High School where poison ivy is growing.

"I think there is a fair amount of sympathy on my part, and of city staff, to folks who have concerns about the use of these chemicals," Bridgeo said. "On the other hand, we're trying to use best practices so the situation doesn't get out of control here."

In the meantime, Mayor Roger Katz is expected to appoint a committee to study the herbicide spraying issue and make a recommendation to councilors.

Residents have said numerous studies have shown substances such as the commonly used glyphosate -- an ingredient in many herbicides, such as Roundup, a generic version of which is to be used by the city -- may cause different types of cancer and genetic and reproductive system problems.

Mary Owen, president of West Side Neighbors, a residential group, said they'd like to see Augusta stop its widespread use of Roundup and similar herbicides.

The group sees Bridgeo's plan as a "forced step in that direction."

"I am pleased the city is considering an advisory committee, and hope that residents will hold this committee to task," Owen said. "Augusta needs a pest management plan that puts the public's health first, not the aesthetics of our city streets.

"We are just learning about the epigenetic effects of environmental pollutants on human health. After all, it has taken generations of exposure to understand the connection. What we are asking council to do is look for reasonable alternatives."

While Bridgeo has authorized spraying on a limited basis, it won't begin until at least Friday.


With an Augusta City Council meeting scheduled Thursday, Bridgeo said the reinstatement of spraying could still be held off if councilors express reservations about it.

Keith Edwards -- 621-5647

kedwards@centralmaine.com

Find this article at:

http://www.kjonline.com/news/augusta-to-resume-some-herbicide-spraying_2010-08-04.html

 [Click to Print](#)

[SAVE THIS](#) | [EMAIL THIS](#) | [Close](#)

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

2010

REPORT CARD FOR MAINE'S ENVIRONMENT

ature earned mixed grades this work on bills to protect Maine's nt, wildlife, and people, including one accomplishment, steps forward in a few disappointments elsewhere. NRCM's Report Card describes the successes and gings of this legislative session and notes ok for improvements in the future. particularly pleased with passage of a omotes "product stewardship." Maine pioner in this area, with several nation bills that save taxpayers money g manufacturers to pay for end-of-y and recycling costs of consumer ontaining harmful chemicals (e.g. television monitors) that should not

andfills. The bill adopted this year will expand this approach to icts. legislature passed two important bills that will reduce toxic pollution ne reauthorizes Maine's Toxics Use Reduction law; the other c flame retardant from plastic pallets that are used to ship a broad onsumer products, including food and clothing. for clean air came with passage of a bill that ratchets down the nt in home heating oil and industrial oil over the next six years. Air cluding climate-changing carbon pollution, also will be reduced as a ortant bills adopted this session that will promote energy efficiency, ed renewable energy, and a "smarter" electricity transmission system.

At a glance...

SUBJECT	GRADE
Reducing Toxic Pollution	A-
Responsible Recycling	A
Cleaner Air	A-
Energy Efficiency	B
Renewable Energy	A-
Climate Change	D
Healthy Fisheries	B
Pesticides Notification	C-

We made some incremental heady the area of fisheries protection, with en of a saltwater fishing registry that will g funds for fish restoration programs. Lav struggled, however, with a bill to help e culverts built beneath roads are proper to provide fish passage. They also had reaching the right outcome on a bill to n Maine's pesticide spraying notification l workable, and on a bill to help address change through energy efficiency stan for residential subdivisions and comm development. In each of these three ar initial legislation was weakened so muc final outcome was a disappointment.

Getting good bills through the Sta is a team effort. NRCM's advocacy staff play a crucial role in that We put in long hours working with legislators, agency staff, and co from other organizations, including the 25 groups that comprise M Environmental Priorities Coalition.

NRCM's members and activists also make a big difference. Yo and involvement help ensure that lawmakers understand the impo of these issues to their constituents, the people of Maine, and futu generations. We appreciate the work of the Legislature, and the in of everyone who helped us achieve this year's progress on laws to protect Maine's environment.

—Pete Didisheim, Advoc





on clean American energy. Over the past two years there has been considerable discussion in Maine about the potential to develop offshore wind power and tidal energy

to help update our energy system, which relies too heavily on oil, natural gas, and nuclear power. A task force established by Governor LePage in 2008 spent more than a year evaluating Maine's opportunities for energy development and presented the Legislature with a report along with proposed statutory changes that can help improve the process of making clean offshore energy sources a reality.

To implement the Recommendations of the Governor's Ocean Energy Task Force (LD 1810) establishes an ambitious goal of developing 1,000 megawatts (MW) of offshore energy by 2030; updates Maine's permitting process so that it could be workable for offshore energy projects; creates a process for leasing offshore sites for renewable energy projects in Maine; establishes an approach that would ensure careful consideration of environmental, visual, and community impacts of such projects. Although it may be a decade before Maine sees a sizable offshore energy project built in the Gulf of Maine, this bill points us in the right direction and was a major accomplishment," said NRCM's Dylan Voorhees. The Legislature also adopted a bill that will provide increased financial incentives for communities that host wind power projects, and which could increase land conservation as part of land-based wind power projects. An Act to Provide Predictable Benefits to Maine Communities that Host Offshore Energy Developments (LD 1504), sponsored by Sen. Peter Mills (Portland), requires wind developers to provide host communities with a "benefits package" with a minimum value of \$4,000 per turbine per year for 20 years, in addition to property tax payments.

Climate Change and Development D



Over the past two years, NRCM and other members of Maine's Environmental Priorities Coalition have worked to pass legislation that would promote energy-efficient design for new commercial developments in order to reduce energy costs, forest cutting,

dependence on fossil fuels, and climate-changing pollution. During the 2009 legislative session, we supported a bill that would have required that climate change impacts were considered during the permitting process for new developments. Unfortunately, a strong group of legislators was determined to kill the legislation, regardless of the energy efficiency and environmental benefits. Most of the provisions were eliminated from the bill that passed.

So we took another run at this important issue, with An Act to Amend the Site Location of Development Laws to Include Consideration of Greenhouse Gas Emissions (LD 891), sponsored by Sen. Seth Goodall (Portland) (S. 1000). The bill would have required developers to incorporate energy efficiency and energy efficiency considerations in their designs, saving money and providing protections for the environment. But this

fail to allow fish and other aquatic organisms to pass. To help address this problem, NRCM worked with a diverse coalition of local conservation organizations, sporting groups, and state agencies to improve fish passage through stream culverts in



The goal of our work was clear: require that new culverts, as well as culvert repairs, be constructed so that fish are able to reach upstream spawning habitat and escape predators. Although poor culverts are a major threat to some of Maine's most economically important fish species, including brook trout, salmon, shad, and alewives, we only achieved a partial victory at the State House. The law that was adopted requires new culverts to be larger and better situated in streams, but the Legislature postponed to the future the task of requiring that older culverts be replaced with fish passage in mind.

Fisheries also will get a small boost as a result of passage of a new saltwater fishing registry in Maine, which will cost \$5 to Maine residents and \$15 for out-of-state residents. This funding will help fill a budget gap at Maine's Department of Marine Resources for marine patrol, fisheries science, and habitat improvement. "Without NRCM's work, this bill would not have passed, and the federal government would have imposed a more costly registry on Maine anglers with all the funds going to the U.S. Treasury," says NRCM Staff Scientist and Watershed Project Director, Tom Bennett. "It took a tremendous effort by many people to get this bill passed, but it was worth it."


Pesticide Notification Weakened

The Legislature adopted an important bill last year that helps Maine people protect their health by requiring proper and timely notification when pesticides will be applied nearby through aerial or air carrier devices. A package of amendments (LD 1547), introduced by Rep. Andrew O'Brien (D-Lincolntonville) was offered to make the system more manageable, help the public understand what to do to avoid exposure from pesticide-spraying neighbors, and make enforcement easier for local administrators.



Unfortunately, this bill became a lightning rod for efforts to rescind the original law. In the end, the original law was seriously weakened by eliminating the direct, written, pre-season notification requirement, exempting non-agricultural pesticide applications until 2012; and, reducing applications to orchards and Christmas trees, reducing the notification distance from 1,320 to 500 feet. Maine's Board of Pesticides Control (BPC) was directed to evaluate provisions of the bill, with input from various agencies, and make recommendations to the next Legislature.

*Photo reproduced by permission from Vaillancourt, L.J., and J.R. Hartman. 2000. Apple scab. The Plant Disease Journal. DOI: 10.1094/PHI-I-2000-1005-01.



Editor / Allison Childs Wells,
Senior Director, Public Affairs

Design / bright red bicycle de

[Print Now](#)[What's this?](#)[See Original](#)

NOT KIDS' STUFF

Risk to kids from toxic pesticides may be underestimated, study finds

by Tom Laskawy 12 Aug 2010 3:49 PM

When kids eat conventionally grown fruits and vegetables, what level of pesticide residues are they taking in -- and to what effect?

The answers to those questions remain murky, because little research has been done. But evidence is building that the way we think about pesticide risk, especially in children, is all wrong. A few years ago, scientists at Emory and the University of Washington showed that when children switched to organic fruits and vegetables, pesticide residue in their bodies (as measured in their urine) dropped significantly within days. But what wasn't clear at the time was the pesticide load in a typical kid's diet, since the scientists in the organic study had themselves established the diet given to the kids.



Bad for bugs -- and for kids, too.

Now, Chensheng Lu, the lead scientist involved with the earlier study, has come out with a new one, along with a team of government and university researchers. This time, he and his team analyzed the pesticide residue on the fresh fruits and vegetables that parents gave their kids. The researchers analyzed the fruit-and-veg consumption of two groups of kids, one from Washington state and one from Georgia.

They found, as expected, a witch's brew of organophosphate and pyrethroid pesticides -- both of which are endocrine disruptors and have suspected neurological effects -- on the fresh fruit and vegetables the study participants ate. Organophosphates, by the way, are the direct descendants of VX and Sarin nerve gases and were recently linked to the development of ADHD in kids.

Now, the individual pesticides were present at levels more or less consistent with what the government considers "safe" (with a few notable exceptions). But that's far from the whole story. The researchers clearly demonstrated that seasonality plays a huge role in kids exposure to pesticides in these classes. In other words, in apple season kids eat a lot of apples -- and, along with them, much higher levels of organophosphates than previously estimated. As obvious as this conclusion is, it's not really one that is acknowledged in current government estimates.

This effect implies that in practice, kids can see seasonal spikes in exposure levels. And that means that the residue levels considered safe may need to be rethought. Consider an apple carrying traces of organophosphates at a level deemed safe. Consuming one a week might indeed be harmless. But if a kid eats seven or 10 in a week because they're readily available, she might be ingesting enough organophosphate traces over a concentrated period to be courting trouble.

Meanwhile, the kids in the different regions were exposed at different rates to the different pesticides -- the Washington kids got hit with more organophosphates while the Georgia kids were exposed to higher levels of pyrethroids. And the kicker? About half of the top 12 fruits and vegetables most consumed by kids in the study are members of the Environmental Working Group's "Dirty Dozen" [PDF]; that is, the 12 fruits

8/16/2010

Risk to kids from toxic pesticides may ...

and vegetables that typically have the highest levels of pesticides. And consumption of many of those would come in seasonal spikes as well.

Until this study, no one had been able to do anything more than theoretically estimate the total pesticide exposure kids experience when they eat conventionally grown foods. The results of these models don't incorporate regional variation in diet and pesticide use or even seasonal variation in what fruits and vegetables are available.

There are no easy conclusions here. No one wants to see kids cut down on fruit and vegetable consumption; they're already consuming too few of these nutrient-dense foods. But we also don't want to see them disrupting their normal development or courting ADHD by eating peaches. The cost-benefit calculations are impossible to make without more information. What this study is telling us is that we're seriously underestimating how much of these dangerous pesticides -- chemicals that can affect kids' growing brains and bodies -- our kids are getting at any one time. For policy makers, the challenge is to create incentives for farmers to move away from poisons as a pest-control strategy.

In the mean time, how should parents respond? According to Environmental Working Group, rinsing helps, but doesn't solve the problem. "The data used to create [the Dirty Dozen and Clean 15 lists] is based on produce tested as it is typically eaten (meaning washed, rinsed or peeled, depending on the type of produce)," EWG writes. The takeaway:

Rinsing reduces but does not eliminate pesticides. Peeling helps, but valuable nutrients often go down the drain with the skin. The best approach: eat a varied diet, rinse all produce and buy organic when possible.

Tom is a writer and a media & technology consultant who thinks that wrecking the planet is a bad idea. He twitters and blogs here and at Beyond Green about food policy, alternative energy, climate science and politics as well as the multiple and various effects of living on a warming planet.



©2010. Grist Magazine, Inc. All rights reserved. Gloom and doom with a sense of humor®.

[Close Window](#)

Organic Food Fends Off Pesticides

Residue levels in kids dropped after a few days of organic food, researchers say

By Randy Dotinga
HealthDay Reporter

MONDAY, Feb. 20 (HealthDay News) -- If you are looking to banish pesticides from your child's diet, new research suggests that organic food will do the trick, at least when it comes to two common pesticides.

Researchers found that pesticide levels in children's bodies dropped to zero after just a few days of eating organic produce and grains. "After they switch back to a conventional diet, the levels go up," said study co-author Chensheng Lu, an assistant professor of environmental and occupational health at Emory University.

But Lu acknowledged that organic food is often more expensive than conventional food, and he added that the health risks of the pesticides in question aren't entirely clear.

According to the study, it has been difficult to figure out exactly how much pesticide residue children are exposed to when they eat food that was treated as it grew in the field.

Lu said the impetus for the new study was a previous research project that examined pesticide levels in 110 children and only found one child whose body was pesticide-free -- a child who regularly ate organic food.

His team looked at two common pesticides known as organophosphorus. According to Lu, their use in residential areas is banned, but they're still used by growers.

In 2003, researchers recruited 23 children from Seattle-area schools, all aged 3-11. Researchers monitored levels of two organophosphorus pesticides -- malathion and chlorpyrifos -- in their urine during a 15-day period in which they alternated between their regular diets and diets featuring organic fruits, vegetables and grain products.

The findings were to be discussed Sunday at the annual meeting of the American Association for the Advancement of Science in St. Louis. The study, funded by the U.S. Environmental Protection Agency, appeared online last September in the journal *Environmental Health Perspectives*.

The researchers found that the pesticide levels dropped immediately when the children started eating the organic foods. The staying power of the pesticides was "relatively short," Lu said.

"Whether that is important in terms of health effects remains to be seen," Lu added, noting that scientists don't know exactly how the pesticides affect the body over time.

There is evidence that they're dangerous, said Dr. Nathan M. Graber, a fellow in pediatric environmental health at the Mount Sinai School of Medicine. "We know that at high doses, these pesticides can cause serious symptoms because they are toxic to the nervous system," he said, adding that there's "sound scientific reasoning" suggesting that low doses can hurt the developing brain.

What should parents do? Kids should be eating lots of fresh fruits and vegetables, regardless of whether they are organically grown, because the benefits greatly outweigh the risk, Graber said. "Parents should not feed their children less nutritious foods out of fear of pesticides."

Foods that are especially vulnerable to pesticide residue include strawberries, nectarines, peaches, apples, pears and cherries, Lu said. Some other foods, such as bananas and oranges, aren't as vulnerable, he added.

More information

Learn more about organic diets from CNN.com (www.cnn.com#1).

SOURCES: Chensheng Lu, Ph.D., assistant professor of environmental and occupational health, Emory University, Atlanta; Nathan M. Graber, M.D., fellow in pediatric environmental health, Mount Sinai School of Medicine, New York City; Feb. 19, 2006, presentation, American Association for the Advancement of Science meeting, St. Louis

Copyright © 2006 [ScoutNews LLC](#). All rights reserved.

Last updated 2/20/2006.

This article can be accessed directly at:

<http://www.healthscout.com/news/1/531114/main.html>

[Close Window](#)

Officials to launch intensive search for voracious beetles

July 6, 2010 12:37 PM

[E-mail](#) | [Link](#) | [Comments \(114\)](#)



By Carolyn Johnson and Martin Finucane, Globe Staff

Teams of experts will check tens of thousands of trees in Boston and Brookline for Asian longhorned beetles, after six red maples were found infested with the bugs at Faulkner Hospital in Boston's Jamaica Plain section, state and federal officials said today.

The six infested red maples were removed today at 5 a.m. from the hospital grounds, but there are no immediate plans to cut down any more trees, and officials are hoping the infestation is an isolated case.

"The good news so far is this appears to be very localized," said Energy and Environmental Affairs Secretary Ian Bowles.

- [Officials to launch intensive search for voracious beetles](#)
- [PHOTOS Boston readies to battle beetles](#)
- [VIDEO Invasive beetles found in Boston](#)
- [12/9/08 Worcester braces for loss of trees](#)

The officials said they were declaring a 1.5-mile-radius zone around the hospital in which firewood and other woody material could not be transported, in an effort to contain the bugs, if any more are found, to the area. All of the trees within that zone, which includes areas of both Boston and Brookline, will be checked by tree climbers and other surveyors, who are expected to work six days a week.

After the beetles were discovered in Worcester in 2008, more than 17,000 infested trees

were cut down. Another 10,000 were cut down because of their proximity to the infestation.

The hospital is located across the street from Harvard University's 265-acre Arnold Arboretum. The arboretum is both a favorite place for residents to stroll and a leading center for the study of plants, one of whose goals, according to its website, is to preserve trees.

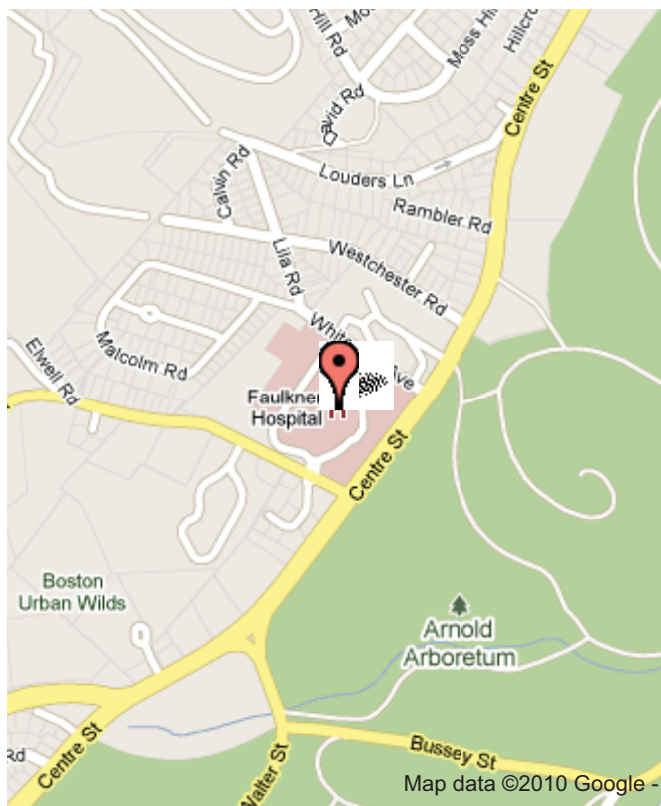
Officials said they would also launch an effort to educate the public about the beetles, and they had set up a hot line for people to report beetle sightings. The number is: 866-702-9938.

Experts have said Massachusetts has the most infested trees in the country, and more than \$54 million has been appropriated in emergency funds in the event an outbreak reoccurs.

The beetles are believed to have come from China. They bore into trees and eventually kill them. They mainly attack hardwood trees, including maples, elms, willows, and birches. There are no known predators to stop the spread of the beetles, state officials said.

The infestation at the Faulkner was confirmed this weekend by officials from the US Department of Agriculture's Animal and Plant Health Inspection Service.

The news came only two weeks after volunteers inspected the trees on Boston Common and were unable to find any traces of the beetles.



California communities deal with conflict and adjustment at the urban-agricultural edge

by Alvin D. Sokolow, Sonja Varea Hammond, Maxwell Norton, and Evan E. Schmidt

About 2.5 million agricultural acres are located adjacent or in close proximity to nonfarm residences in California, leading to widespread farm-residential conflicts. This exploratory study compared high- and low-conflict edges in four crop-growing communities in two counties. (A separate analysis of San Diego County in a sidebar compares two edge situations involving animal and nursery operations.) We present tentative generalizations about conflict variations, sources and solutions. High conflict levels were largely due to residents' unfamiliarity with agricultural activities, although conflict levels were also related to specific farming practices. We also pose questions to guide further and more systematic research on the edge issue in California agriculture.

California agriculture is substantially affected by ongoing urban growth. While sustaining the nation's largest agricultural economy, the state continues to add about 350,000 new residents each year. As well as converting farmland to nonagricultural uses, urbanization creates serious residential-farm conflicts — the so-called “edge” problem (see box). In many agricultural areas, residential populations in close proximity impede the productivity, efficiency and profitability of farm operations.

California newspapers offer numerous accounts of edge issues in particular locales (Levin 2000; Morain 1991; Price 1994; Vellinga 2007; Sokolow 2003). The harm to agriculture includes limitations on routine practices such as chemical applications and cultivation, liability for trespassers, theft,



In California, an estimated 2.5 million agricultural acres are located within one-third mile of an urbanized area. Above, in south Salinas a landscaped driveway faces irrigated fields.

vandalism, imported pests and increased traffic on rural roads. Negative impacts also occur on the other side: Residential neighbors have problems with odors, noise, nighttime operations, dust, pesticide sprays and other nuisances, or even health problems associated with agricultural operations. The edge problem is not unique to California. It appears in many other parts of the nation where urbanization extends into commercial agricultural areas (Jackson-Smith and Sharp 2008; Abdalla and Kelsey 1996; Larson et al. 2001; Van Driesche et al. 1987).

These accounts are usually anecdotal or prescriptive in nature, lacking a systematic examination of the causes and effects of agricultural-residential conflicts, especially one that builds on a comparison of different edge situations. We present a comparative case analysis focusing on two alternative explanations for conflict variations: (1) the nature of specific commodities grown and (2) the characteristics of residential neighbors. This exploratory study was based on edge situations in

Conversions and edges: How much farmland is affected?

Close to 40,000 acres of agricultural land — a little more than one-tenth of 1% of California's total — are converted to urban uses annually (CDC 2006). Far more farm acres, however, are located in close proximity to residential neighbors. An estimated 2.5 million agricultural acres throughout California are within one-third mile of urban edges (Sokolow 2003). In 2004, this estimate was updated based on a calculation in that year of 12,137 edge miles statewide where agricultural land bordered residential and other urban land; cropland edges totaled 7,886 miles. These numbers actually underestimate the true extent of edges, since they are based on the state definition of “urban and built-up” land as six or more structures per 10 acres and do not account for separated, single residences in rural areas.

two localities in each of two California counties with significant crop production.

Research in sample communities

From 2003 to 2005, we conducted open-ended interviews, in person and by phone, with county agricultural commissioners and their staffs, county government officials, agricultural leaders and individual farmers in Merced and Monterey counties, which are located in the Central Valley and Central Coast, respectively. Along with San Diego County on the southern coast (see sidebar, page 127), these farm counties rank among the top 10 in the state in agricultural income, each with more than \$1 billion in commodity sales annually. All have growing urban populations in their agricultural areas that suggest the potential for significant edge conflicts.

The sample counties were selected because they are the field locations of co-authors who are UC Cooperative Extension advisors. Thoroughly familiar with local agricultural conditions, the advisors also chose the persons interviewed, conducted some of the interviews and helped select the specific communities for study. For each of the two sample counties, we selected two communities to compare — one relatively “high” and the other relatively

	Merced County		Monterey County	
	Los Banos	Livingston	Prunedale	Salinas
Relative degree of edge conflict	High conflict	Low conflict	High conflict	Low conflict
Type	City	City	Unincorporated	City
Edge segment studied	N, W, S borders	S border	Entire community	SW border
2000 population	25,869	10,473	16,432	151,060*
Population increase entire community, 1990–2000 (%)	72.8	43.1	122.2	38.8
Agricultural commodities produced	Cattle, dairy, forage crops	Almonds, peaches, sweet potatoes	Strawberries, cut flowers	Vegetables, strawberries, animals

*Entire community.
Sources: US Census 2000; interviews.

“low” in the degree of perceived conflict between farmers and residential neighbors (table 1).

Three of the communities are incorporated cities, governed by municipal governments; the fourth, Prunedale in Monterey County, is unincorporated and most of its local government services and regulations — including land-use planning — are provided by county government. There are notable differences among the four communities in size, recent population growth and principal agricultural commodities. Two San Diego County communities, the unincorporated area of Ramona

and the city of Oceanside, are the subject of a separate analysis (see sidebar, page 127).

Conflict variations and issues

In distinguishing between high- and low-conflict situations among the four sample edges, we looked for evidence of the relative intensity of disagreements between farmers and residential neighbors. The indicators included: (1) the volume, variety and duration of perceived problems about agricultural practices raised in residents’ complaints, as described by county officials and other interviewees and (2)

	Merced County		Monterey County	
	Los Banos	Livingston	Prunedale	Salinas
Relative degree of edge conflict	High conflict	Low conflict	High conflict	Low conflict
Problems perceived by residents, approximate order of severity	Airplane, helicopter noise Defoliant smell Air quality Pests Dust Pesticide drift on vehicles	Night agricultural work Pesticide drift Odor	Drainage Soil erosion Fumigation Pesticide drift Animals and related noise or illegal activity	Odor
Problems perceived by farmers, approximate order of severity	Trash on farms, roads Trespassing Theft Vandalism Operational restrictions	Vandalism Trespassing Theft Operational restrictions Traffic congestion	Theft Drainage Operational restrictions Ranchettes Competition for water Dumping	None or minimal
Persons interviewed	Seven farmers Two agricultural commissioner staff Three aerial pesticide applicators Three city planners Chamber of Commerce official		Four farmers One agricultural commissioner staff Three staff of agricultural organizations Four county government staff One aerial pesticide applicator Two agricultural consultants	

Source: Interviews.

farmers' perceptions about the negative impacts of adjacent residents on their agricultural operations, as expressed in interviews.

Our data generally cover a 5-year period, starting in the late 1990s and concluding in about 2004. Edge-conflict patterns can fluctuate over time as farming practices and/or residential populations change, so the conflicts identified here are not necessarily longterm.

The study identified and compared high- and low-conflict segments within each of the two counties, rather than comparing them overall (table 2).

Merced County. The volume and variety of complaints by residents about nearby farm operations marked the Los Banos edge as much more conflictual than the Livingston edge in the late 1990s and early 2000s, according to two staff members of the Merced agricultural commissioner assigned to the Los Banos and Livingston field offices. They and other interviewees noted that residential complaints had greatly increased in recent years in Los Banos as a result of the city's rapid population growth and expansion into surrounding farmland (fig. 1). While we lack specific numbers, interviewees said that the list of residents' complaints was topped by noise from airplanes and helicopters spraying chemicals, the smell of defoliant and other chemicals applied to cotton fields, and poor air quality. In the late summer, people complained about respiratory problems attributed to the application of cotton defoliant and other farm practices.

In contrast, complaints from residential neighbors of farms around Livingston were relatively few and mild during the same period. Pesticide-related objections were infrequent, according to one agricultural commissioner's staffer, not exceeding five per year. The top issue was noise and dust from the blast sprayers used to spread pesticides on orchard treetops.

On the agricultural side of the edge, problems were generally similar around the two cities, and included trespassing, theft, vandalism and restrictions on farming practices (table 2). Farmers in Los Banos regarded edge issues as more serious than in Livingston. Theft and trash dumped on farmland and local

roads were cited as a bigger problem for agriculture in the Los Banos area than around Livingston.

Monterey County. The consensus among Monterey County interviewees was that edge problems were more pronounced in unincorporated Prunedale in northern Monterey County than on the southern border of the city of Salinas (fig. 2). With single rural home sites interspersed among small strawberry, flower and other farms, there were ample opportunities for edge conflicts in Prunedale. The most serious problems expressed by residents in the early 2000s concerned soil erosion, poor drainage of runoff water, and the smell and health hazards of fumigating strawberry fields with methyl bromide. A small group of residential opponents to agricultural practices in the north county had organized as the "Code Rangers." They monitored local conditions and reported perceived violations of county codes to county officials. One target was erosion created by strawberry fields.

In comparison, the agricultural area on the southern edge of Salinas, a relatively stable locale with little population growth since the 1970s and with more distinct farm-residential borders, was relatively problem free. In fact, interviewees could not recall any substantial complaints from residential neighbors in recent years, with the exception of some protests about odors.

Problems perceived by farmers paralleled the residents' complaint pattern, with no issues recorded for south Salinas. Some of the same problems — drainage, erosion and



Residents living near active farms may complain about drift and noise from spray applications, dust from plowing and odors. Above, a pesticide warning sign is posted near apartments in south Salinas.

fumigation — that were the basis of residents' complaints also bothered farmers, although from a different perspective. Runoff problems were seen by farmers in Prunedale as partially caused by home and road construction, and fumigation restrictions led to increased costs and operational adjustments for strawberry growers. Theft also was a major problem, as one farmer reported: "We had a truck parked on the ranch and they actually stole the radiator and the four-wheel-drive mechanism . . . We had trailers broken into, probably about a thousand dollars of small tools lost. We keep nothing out there anymore, not even a shovel. That's the hardest part about farming in north Monterey County now. I know that everybody who farms in the area has had that problem" (phone interview, Jan. 28, 2005).

Commodity production and practices

What accounts for the variations in edge conflicts from place to place?

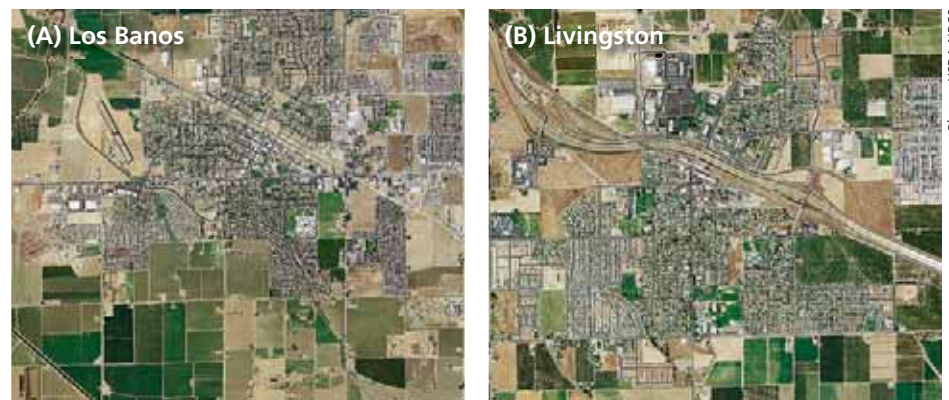


Fig. 1. Aerial photo comparisons of (A) Los Banos and (B) Livingston in Merced County in 2009 suggest that urban-agricultural borders were more irregular around Los Banos than around Livingston, possibly helping to generate higher levels of edge conflict in Los Banos.

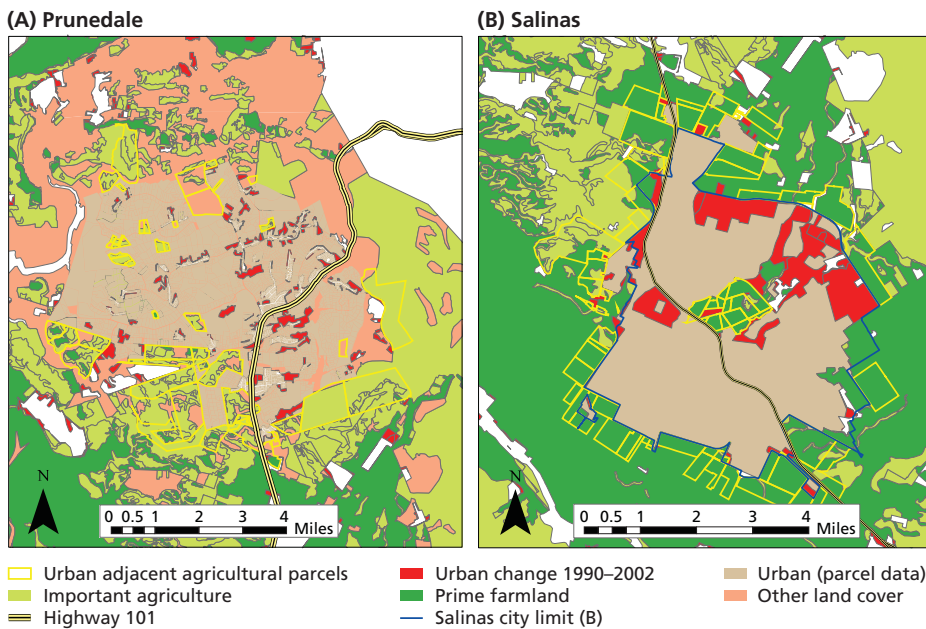


Fig. 2. The GIS-mapped relationship of urban and agricultural parcels in Monterey County in 2002 shows a fragmented pattern in (A) unincorporated Prunedale as compared to the relatively straight line on the southern edge of (B) the city of Salinas. Urban-agricultural conflicts were much more intense in the latter than the former area in the late 1990s and early 2000s. Source: Nathaniel Roth, Information Center for the Environment, UC Davis, based on information from Monterey County and the California Department of Conservation Farmland Mapping and Monitoring Program.

The case studies suggest two contrasting explanations, one concerning the nature of agricultural practices and the other related to the degree that edge residents are newcomers with urban backgrounds. On the one hand, more intense conflicts at the edge can be attributed to specific farming activities that generate extensive negative impacts (Connell 1999; Levin 2000; Vellinga 2007). On the other hand, new residents who are unfamiliar with country life and agriculture may have relatively little tolerance for farm operations (Morain 1991; Leavenworth 2000). These explanations have been separately identified in newspaper accounts and academic research, but without comparing the two factors.

Virtually all agricultural operations have the potential to disturb nearby residents. But the potential may be

Farmers and ranchers have some ability to increase or reduce edge problems, depending on how they operate.

greater for certain kinds of farm commodities — such as crops that require heavy applications of pesticides or other chemicals, or that involve intensive cultivation and harvesting that generate dust, noise and nighttime impacts. Confined-animal facilities such as dairies, poultry ranches and hog farms are especially conducive to negative impacts, largely because of their waste products (Baca 2002; Castle 1998; Henderson 1998; Hirschl and Long 1993; Schwab 1998; Turner 2003) (see sidebar, page 127).

Some of these crop conditions were present in our study's four edge segments, but were more pronounced in the high-conflict than the low-conflict edges, as seen with concern about the smell of defoliant used in cotton production around Los Banos (Merced County) and the use of methyl bromide on strawberry fields in Prunedale (Monterey County).

The issue may not be about the particular commodity grown, as some interviewees suggested, but rather how it is grown — including management practices such as pesticide applications, the timing of noisy harvest activities and equipment maintenance. Farmers

and ranchers have some ability to increase or reduce edge problems, depending on how they operate.

New residents from urban areas

People who occupy homes adjacent to agricultural operations vary in their tolerance of farming practices. The conventional wisdom repeated in newspaper reports is that newly arrived edge residents with urban backgrounds are more likely to be upset by local farm operations than residents with rural backgrounds and longer tenure in a locality. Our research supports this observation. Indeed, differences in background characteristics and the duration of local residence offered the strongest explanation for the conflict variations in the two study counties.

Los Banos-Livingston. The most solid evidence came from the Los Banos-Livingston comparison in Merced County. Both cities have traditional agriculture-dependent economies, and both have experienced substantial population increases since the 1980s. But the extent and character of this growth differed in major ways. The population of Los Banos (the high-conflict community) more than doubled from 1990 through 2004, from 14,519 to 30,650 residents. Growth in Livingston (the low-conflict community) was more modest, with a 59.9% increase, from 7,317 to 11,700 residents, during the same time.

The origins of growth differed significantly. In Los Banos, it stemmed mostly from the more urban Santa Clara County/San Jose area and other parts of the Bay Area. In Livingston, it was mostly from other areas of the relatively rural San Joaquin Valley.



A newspaper article describes the conflicts that can arise when commuters purchase homes in primarily rural communities such as Los Banos, located about 60 miles from employment centers in the South Bay and East Bay.

Los Banos is located on the west side of Merced County near Interstate 5, about 60 miles from major employment centers in the South Bay and East Bay, making it a long but manageable commute for urbanites seeking relatively inexpensive housing and small-town ambience. The result has been the development of a newcomer/old-timer divide in Los Banos. Newer residents have higher incomes, are residentially concentrated in new subdivisions on the edge of town and adjacent to farms, and are more likely to work in occupations not associated with agriculture. Livingston, by contrast, is in the central part of the county, closer to other San Joaquin Valley communities and less accessible to Bay Area commuters. Its newer residents are more similar to their longer-term neighbors, and Livingston seems to lack the social and occupational divisions that have developed in Los Banos.

A staff member of the agricultural commissioner's office said: "New residents in the Los Banos area are not originally from the valley and have a very low tolerance to ag practices and consider them threatening. New residents in the valley communities grew up in the valley and they are accustomed to ag practices . . . Bay Area people are very confrontational compared to those who grew up here. They like to carry complaints on up the chain of command" (phone interview, Sept. 20, 2004).

A comparison of U.S. Census data supports these perceived differences between Los Banos and Livingston (table 3): (1) between 1995 and 2000, proportionately more Los Banos residents had moved there from another county; (2) Los Banos residents had longer commutes to jobs in 2000; (3) there was a sharp decrease in the proportion of Los Banos workers employed in agriculture in 2000; and (4) Los Banos had higher income levels and faster income growth (median household income) in 1990–2000 than Livingston.

Prunedale-Salinas. Similar differences help explain the conflict variations between the two Monterey County edge segments. Prunedale, the high-conflict unincorporated

community, experienced a population increase from 1990 to 2000 of 122%, from 7,393 to 16,432 residents. The southern border of Salinas, the low-conflict edge, has been relatively stable in recent decades, with the last appreciable residential development occurring in the 1970s. In part because of proximity to good agricultural soils south and west of Salinas, city policy has limited further residential expansion in this area in favor of extending urban development to the north and east. All of Salinas had only a 39% population increase in the 1990s, much smaller than Prunedale. Several

interviewees pointed to the role of new residents in escalating the levels of perceived agriculture-related problems in Prunedale. One farmer noted: "The problem we have is that . . . people who move to rural areas but who are basically from the city don't understand that water flows downhill. They also complain about dust. But everybody else is used to living down there, and they don't create problems" (phone interview, Jan. 28, 2005).

In 2000, larger percentages of Prunedale than Salinas residents reported: (1) living in other counties 5 years earlier; (2) workplace locations

TABLE 3. Demographic patterns, Merced County cities, 1990–2000*

	Los Banos (high conflict)		Livingston (low conflict)	
Different residence in 1995, as % of 2000 population:				
Different house	53.1		39.2	
Different county	33.8		7.0	
	1990	2000	1990	2000
Workplace location outside county of residence (% of employed)	12.9	44.5	21.1	27.8
Mean commute time (minutes)	17.4	44.5	16.7	20.7
Increase in commute time (%)		155.7		23.9
Occupation in agriculture (% of employed)	12.8	8.6	nat	20.7
Median household income (\$)	24,649	43,690	26,707	32,500
Increase in income (%)		77.2		21.6
Increase in median home value (\$)		140,200		92,700
* Data for entire cities of Los Banos and Livingston.				
† Not available.				
Source: US Census 2000.				

TABLE 4. Demographic patterns, Monterey County communities, 1990–2000*

	Prunedale (high conflict)		Salinas (low conflict)	
Different residence in 1995, as % of 2000 population:				
Different house	38.2		54.1	
Different county	33.8		13.2	
	1990	2000	1990	2000
Workplace location outside county of residence (% of employed)	20.4	25.6	6.1	11.0
Mean commute time (minutes)	8.6	28.2	18.7	24.2
Increase in commute time (%)		227.9		29.4
Occupation in agriculture (% of employed)	13.8	4.8	19.1	15.2
Median household income (\$)	44,638	62,963	31,271	43,270
Increase in income (%)		41.0		38.3
Increase in median home value (\$)		281,400		195,700
* Data for Prunedale CDP (census-designated place) and entire city of Salinas.				
Source: US Census 2000.				

in other counties; and (3) employment in nonagricultural industries, with a sharp decrease in farm employment from 1990 to 2000 (table 4). Prunedale residents also had longer commutes to work, with a steep increase in mean commute times within the decade.

Adjustments to avoid conflicts

As others have suggested, the most effective efforts to limit the scope and incidence of conflict with residential neighbors may be farmer adjustments to their normal agricultural practices (Coppock and Kreith 1997).

Regulations. Adjustments in California are largely due to county government regulation on the farm use of pesticides and other health-related chemicals. The restrictions originate in state health protection laws administered by county agricultural commissioners. County environmental health and county or regional air-quality programs also regulate local agricultural practices. As noted by Merced County agricultural commissioner's staff, pesticide use close to residences is more closely monitored than applications elsewhere. Depending on the hazard level of the chemicals employed and particular edge configurations, farmers are sometimes required to use buffers of varying widths between houses and the fields where pesticides are applied.

Voluntary actions. Agricultural operators also engage in voluntary adjustments intended to head off potential problems. Interviewees described such "good neighbor" actions as:

- Notifying nearby residents of upcoming operations with the potential to generate substantial noise, dust or other annoyances.
- Conducting dusty or noisy field operations on days and at times when the fewest number of neighbors are likely to be affected.
- Operating harvest equipment to minimize dust spray.
- Installing decorative fences and landscaping buffers.
- Sharing produce with neighbors.

Aerial applications of pesticides onto fields and orchards are especially



As population expands into agricultural areas, growers may complain about theft, vandalism and restrictions on farming practices. Such concerns were generally less common in Livingston, above.

vulnerable to residential edge problems. The four aerial applicators we interviewed who worked in Merced and/or Monterey counties described modifications to their operations in recent years due to residential development in agricultural areas. While such technological advances as quieter aircraft and GPS (global positioning systems) as a substitute for ground-flagging could be the inevitable progress of an industry seeking more efficiency, they appeared to be hastened by the need to improve the precision of spray applications in problematic areas. The applicators reported that they turned down jobs where edge configurations posed liability concerns; they also noted that about half of the aerial applicators in California had gone out of business or consolidated in recent years. One applicator who works in Merced County said: "Small (agricultural) parcels created by lot splits are more difficult and expensive to treat and also present more opportunities for off-site drift problems . . . Liability insurance costs are skyrocketing. When they hear a plane nearby, people just assume they are being poisoned. We receive lots of noise complaints" (phone interview, October 2004).

Neighbor adjustments. Generally seen as the victims of harmful agricultural practices, residents can also be the perpetrators of problems experienced by some farm operators, such as theft, vandalism and trespassing. However, we found no direct evidence of efforts by edge residents to avoid such impacts

and respect agricultural property, since this was not a focus of the research and no interviews were conducted with residents. It is possible that individual adjustments may occur with, for example, families restraining unruly youngsters and controlling their dogs. Still, the incentives for adjustments by residents are far less obvious and compelling than the economic and regulatory factors that cause farm operators in edge locations to be careful about their production practices and protect their assets.

Public policies and programs

California local governments have considerable regulatory and other powers to limit or even prevent edge conflicts (Sokolow 2003). Perhaps the most effective are planning and zoning actions that determine the location and configuration of new residential developments (Handel 1994). Available policies range from overall strategies, such as county-city agreements to divert new growth away from agricultural areas by concentrating it in cities (see page 129), to more specific requirements such as buffers and large minimum parcel sizes in agricultural zones. Nonregulatory measures, such as right-to-farm ordinances and educational programs, are generally regarded as less effective because of their voluntary and general nature (Wacker et al. 2001).

We have no evidence that such policy measures helped to control or
(continued on page 128)

Confined facilities create conflicts in San Diego County communities

by Alvin D. Sokolow, Ramiro E. Lobo and
Kristen Hukari

Edge conflicts often concern agricultural production methods that are different than the typical open field-crop operations found, for example, in Merced and Monterey counties. In particular, confined-animal production facilities can adversely affect residential neighbors, as recent events in the San Diego County communities of Ramona and Oceanside illustrate. The conflict associated with two poultry ranches in Ramona was relatively severe, as marked by its longevity, persistence of formal neighbor opposition and local government regulatory activity. Issues concerning a plant nursery in Oceanside were mild by comparison.

Ramona poultry farms. Twenty-five miles northeast of San Diego, Ramona is an unincorporated community that has lived with the odors and other impacts of major turkey and chicken facilities for most of a century. But residents' complaints starting in 2000 about two particular egg ranches, introduced a new level of agricultural-residential conflict. Criticism focused on health and air-quality problems, and odors and flies emanating from the two egg ranches, part of 10 such facilities in San Diego County owned by a family that had been in the poultry business for three generations. The two ranches were relatively older facilities, and some interviewees attributed the problems to a lapse in ranch management related to the recent death of the father of the family and a shift in control to two young brothers.

Nearby residents protested to the county supervisor, who became personally involved in the issue, as well as to the San Diego County Department of Environmental Health (DEH) and other agencies. Residential neighbors filed numerous complaints between 2000 and 2002, including four during a 3-day period in May 2002. At the same time, the two ranches came under increasing scrutiny from DEH staff, who reported excessive fly populations resulting from accumulated manure piles during regular inspections, and who issued

violation notices in 2000 and 2001. In May 2001, the ranch owners and managers were ordered to appear before the county's Fly Abatement Appeals Board (FAAB) for failure to correct the problem. Twenty-five residents attended the hearing, which produced an order to abate the fly-breeding hazard and required manure-management procedures. After a second FAAB hearing in August 2001, the county filed a civil action in Superior Court against the owners, seeking penalties and injunctive relief for violations of county codes and the creation of a public nuisance.

A settlement agreement in November 2001 called for certain manure disposal and sanitary measures and a \$25,000 civil penalty. However, the neighbors' complaints continued, and the supervisor met several times with area constituents. In June and July 2002, the two parcels were sold to non-farmers and ranch operations ceased.

Oceanside nursery. In this coastal city 30 miles north of San Diego, the involvement of residential neighbors in edge issues was relatively subdued and limited. Shortly after a large flower nursery was established in the Morro Hills area in 1998, neighbors began to complain to the greenhouse operator about noise, truck traffic, late hours, outdoor lights, litter and other problems.

The conflict eventually led to the revision of Oceanside's zoning ordinance in summer 2000, which (1) distinguished between open ground agriculture and operations in structures, (2) specified where nursery activities could be located on a farm site and (3) established new development standards. Fearing more burdensome restrictions than had been proposed, growers joined in the negotiations with homeowners and city planning staff that led to the new policy.

The conflict was constrained by city and county procedures. Oceanside deliberately supports commercial farming, particularly in designating an agricultural district — which includes South Morro Hills — where large-scale

agriculture is encouraged and only low-density housing is permitted. San Diego County also has a mechanism intended to moderate edge problems, the Agricultural Interface Board. In early 2000, some of the parties involved requested that the agricultural commissioner convene the board, which is composed of technical experts, to mediate the greenhouse conflict. This effort was not successful.

Urbanization conflicts. How do these events compare with edge conflicts in in the four Central Valley communities (see page 121)? Unlike Merced and Monterey counties, the urban orientations of new residents were not noticeable factors in the development of conflicts. Newcomers were not prominent among the residential neighbors who complained about the egg ranches and nursery operation. The edge conflicts in Ramona and Oceanside resulted from commodity production and facility management issues.

The second important difference is that the two San Diego County com-

The edge conflicts in Ramona and Oceanside resulted entirely from commodity production and facility management issues.

munities made substantial use of local government policies and mechanisms that were largely absent in Merced and Monterey counties. County government regulatory agencies were actively involved in both the Ramona and Oceanside situations, and Oceanside's agriculture-friendly policies that seek to protect farming as a desirable long-term land use helped to limit the conflict. Indeed, San Diego County and the city of Oceanside are exceptional in this regard, because few other California local governments have comparable programs for dealing with agricultural-residential conflicts.

A.D. Sokolow is Cooperative Extension Public Policy Specialist Emeritus, Department of Human and Community Development, UC Davis; R.E. Lobo is Farm Advisor, UC Cooperative Extension (UCCE), San Diego County; and K. Hukari was Program Representative, UCCE San Diego County.

(continued from page 126)

limit edge conflicts in the four sample communities. While some complaints from residential neighbors were submitted to county agencies, there is no indication from interviewees or other sources that they led to specific regulatory or other governmental actions. However, county governments were prominent in edge conflicts in two

What dollar amounts can be assigned to the costs of farming in edge locations?

San Diego County communities (see sidebar, page 127), showing how public policies and their implementation can influence the incidence and intensity of edge conflicts.

Further questions

Several conclusions about the patterns of edge conflict in six communities in three counties (Merced, Monterey and San Diego) emerge from this exploratory study. Conflicts varied considerably by community or edge segment. Two factors explain conflict variations in particular cases: (1) the

perceptions and backgrounds of residential neighbors and (2) farming practices. The most frequent and effective efforts to limit the scope and incidence of edge problems in the sample communities were farmers' adjustments — either mandated or voluntary — in their agricultural practices, at some cost to their bottom lines.

Considering the small sample size and the exploratory nature of this study, these are tentative conclusions or informed hypotheses. They lead us to the following list of questions for more systematic research that would require larger samples of communities and interviewees, including residential neighbors:

(1) What do residential neighbors in edge locations say about the impacts of nearby agricultural operations, and how do these perceptions compare to those of neighboring farmers?

(2) When, how and to whom do residential neighbors express their complaints about agricultural operations? Do organized and individual forms of opposition achieve different results?

(3) What dollar amounts can be assigned to the costs of farming in edge locations, in lessened efficiency, productivity and profitability?

(4) Do conflicts at particular edges lessen over time, as these areas become more stable and former newcomers become settled old-timers?

(5) How do spatial patterns — residential locations in relation to agricultural activity as revealed by geographic information system (GIS) mapping — affect the extent of edge conflicts?

(6) Finally, what is the relative effectiveness of various public policy measures — such as grievance procedures, right-to-farm ordinances, required buffers for new development and zoning — in avoiding or reducing edge conflicts?

A.D. Sokolow is Cooperative Extension Public Policy Specialist Emeritus, Department of Human and Community Development, UC Davis; S. Varea Hammond is County Director, UC Cooperative Extension (UCCE), Monterey County; M. Norton is Farm Advisor, UCCE Merced County; and E.E. Schmidt is Recent Graduate, Geography Graduate Group, UC Davis. Portions of the research were supported by work group funds provided by the UC Division of Agriculture and Natural Resources.

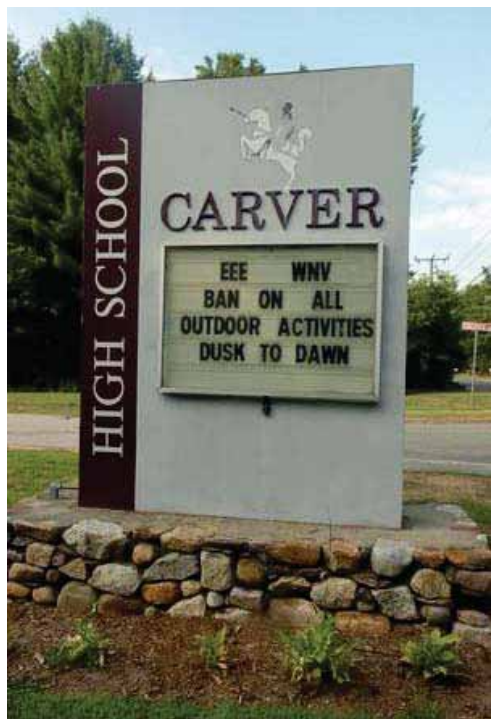
References

- Abdalla C, Kelsey T. 1996. Breaking the impasse: Helping communities cope with change at the rural-urban interface. *J Soil Water Conserv* 51:462–6.
- Baca K. 2002. Big dairies, big fights. *Sacramento Bee*, Nov. 16.
- Castle E. 1998. *Agricultural Industrialization in the American Countryside*. Henry A. Wallace Institute for American Agriculture. Policy Studies Report No. 11. Greenbelt, MD. 45 p.
- [CDC] California Department of Conservation. 2006. *California Farmland Conversion Report, 2002–2004*. Sacramento, CA.
- Connell SA. 1999. A blossoming dispute over greenhouses. *Los Angeles Times*, April 11.
- Coppock R, Kreith M (eds). 1996. *Farmers and Neighbors: Land Use, Pesticides, and Other Issues*. UC Agricultural Issues Center, Davis, CA. 72 p.
- Coppock R, Kreith M (eds.). 1997. *California's Future: Maintaining Viable Agriculture at the Urban Edge*. UC Agricultural Issues Center, Davis, CA. 80 p.
- Handel M. 1994. *Conflicts and Solutions When Agricultural Land Meets Urban Development*. M.S. thesis, Community Development, UC Davis. 122 p.
- Henderson H. 1998. Noxious neighbors. *Planning* 63(10):4–9.
- Hirschl TA, Long C. 1993. Dairy farm survival in a metropolitan area: Dutchess County, New York, 1984–1990. *Rural Sociol* 58(3):461–74.
- Jackson-Smith D, Sharp J. 2008. Farming in the urban shadow: Supporting agriculture at the rural-urban interface. *Rural Realities* 2(4). Rural Sociological Society, Columbia, MO.
- Larson JM, Findeis JL, Smith SM. 2001. Agricultural adaptation to urbanization in southeastern Pennsylvania. *ARE Rev* 30(1):32–43.
- Leavenworth S. 2000. Beef with neighbor mars her bucolic lifestyle. *Sacramento Bee*, Feb. 5.
- Levin C. 2000. Pesticides: The price of living by farms. *Ventura County Star*, Dec. 10.
- Morain D. 1991. Cultures clashing down on the farm. *Los Angeles Times*, Oct. 6.
- Price R. 1994. Do farmers till the land or reap its value? *Bakersfield Californian*, Oct. 23.
- Schwab J. 1998. *Planning and Zoning for Concentrated Animal Feeding Operations*. American Planning Association, Planning Advisory Service Rep 482. Chicago, IL.
- Sokolow AD. 2003. California's edge problem: Urban impacts on agriculture. In: Siebert J (ed.). *California Agriculture: Dimensions and Issues*. UC Giannini Foundation of Agricultural Economics, Davis, CA. Information Series 03-1. p 289–304.
- Turner M. 2003. Supervisors give ok for hog farm to stay. *Modesto Bee*, July 9.
- US Census. 2002. *US Census of Population and Housing; Summary of Social, Economic and Housing Characteristics, 2000*. Washington, DC.
- Van Driesche RG, Carlson J, Ferro DN, Clark JM. 1987. Pesticides and suburban agriculture. In: Lockeretz W (ed.). *Sustaining Agriculture Near Cities*. Soil and Water Conservation Society, Ankeny, IA.
- Varea Hammond S. 2002. Can city and farm coexist? The agricultural buffer experience in California. *Great Valley Center*, Modesto, CA. 26 p.
- Vellinga ML. 2007. Grappling with vintners' growth. *Sacramento Bee*, Nov. 6.
- Wacker M, Sokolow A, Elkins R. 2001. County right-to-farm ordinances in California: An assessment of impact and effectiveness. AIC Issues Brief 15. UC Agricultural Issues Center, Davis, CA. 8 p.

Weather may again delay aerial spray for EEE on Thursday

Zoom

Photos



Marc Vasconcellos/The Enterprise

A message at Carver High School informs residents of the ban on outdoor activities due to mosquitoes carrying Eastern equine encephalitis and West Nile virus. Aerial pesticide spraying to kill mosquitoes will take place Thursday night, weather permitting.

More Photos

By Alice C. Elwell
Enterprise Correspondent

Posted Aug 05, 2010 @ 06:01 AM
 Last update Aug 05, 2010 @ 07:26 AM

MIDDLEBORO — Thursday's threat of thunderstorms and the cool weather predicted for the weekend could further delay the state's aerial assault on mosquitoes carrying the Eastern equine encephalitis virus.

State officials called off Wednesday evening's scheduled spraying of insecticide because of high winds.

The planes will be ready to lift off Thursday night, but the weather forecast could push spraying back another day.

If winds gust more than 10 mph, if it rains or if the temperature drops below 65 degrees, the planes will not spray.

Friday's forecast calls for nighttime temperatures as low as 56 degrees, and the predicted low for Saturday and Sunday nights is 55 degrees.

The prospect of delays worries local mosquito-control officials.

"If the planes don't get up soon, I'm worried the virus will spread," said Wayne Andrews, superintendent of the Bristol County Mosquito Control Project.

EEE has been spreading rapidly this season since officials first found it in mosquitoes in Lakeville on July 12.

State officials are saying the disease is at its highest levels locally in more than 100 years.

Seventeen towns are on high alert after multiple confirmations of the disease and the death of a prize horse in Middleboro.

Nearly 100 people have shown symptoms of the disease but have tested negative for it.

The disease most recently has been confirmed in Raynham, where a mosquito sample taken Monday tested positive.

On Wednesday, the state Department of Health announced that the disease has stretched beyond Southeastern Massachusetts for the first time this year, to Warren in Worcester County. A horse there was euthanized Aug. 1 after contracting the disease.

As of Wednesday, the state planned to spray the pesticide Anvil on the entire communities of Acushnet, Bridgewater, Carver, Duxbury, Halifax, Lakeville, Middleboro, Pembroke, Plympton, Raynham and Rochester.

Portions of other communities to be sprayed are Berkley, Dartmouth, East Bridgewater, Easton, Fairhaven, Freetown, Hanson, Kingston, Marion,

Tools

- Print
- Comment
- ShareThis

Precautions to take when spraying begins

State health officials were busy Monday preparing for aerial spraying of southeastern Massachusetts to reduce the mosquito population and cut the risk of humans contracting the deadly blood-borne illness Eastern equine encephalitis.

Dr. Alfred DeMaria Jr., the state's chief medical officer, said the spraying will work in much the same way as it did in 2006, the last time the state authorized the measure.

At that time, health officials offered the following precautions:

- Close windows and fans, and shut off air conditioners and recirculate indoor air
- Rinse home-grown fruits and vegetables with water before cooking or eating them
- Wash exposed skin with soap and water
- Rinse exposed eyes with water or eye drops, then call a doctor



Mattapoisett, New Bedford, Norton, Plymouth, Wareham and West Bridgewater.

[Click here to see the spray map from the state Department of Public Health site. \(PDF file\)](#)

[If you can't see PDFs, you can view the map online at this link.](#)

A total of 285,000 acres will be treated at a cost of \$1.5 million to \$2 million.

Whenever the spraying finally does occur, Andrews said, people in the region will barely notice it. The plan is to use two-thirds of an ounce for every acre.

“You won’t smell it, you won’t taste it, you won’t even know it’s in the air.” Andrews said, “The only way people will know it has been sprayed is when they hear the planes overhead.”

The Department of Health has set up a 211 information line to provide updates and more details about the disease and the effort to control it.

Copyright 2010 The Patriot Ledger. Some rights reserved

- o Cover small fish ponds
- o Keep farm animals in barns during the application, and do not allow them to graze on treated hay or fodder for 48 hours afterward.

Symptoms of exposure include:

- o Inflammation of the nasal passage, sneezing, scratchy throat, fluid and swelling in the mouth, and or throat, cough, shortness of breath, wheezing, and chest pain.



Comments (1)

you will also know afterward when all the good insects are dead and none existant...

i havent seen a mosquito all summer

typical overkill and governmental panic by politically motivated elected officials

Login or register to post a comment:

Login

Username:

Password:

[Forgot password](#)

Register

Email:

First Name:

Last Name:

I agree to the terms of use

I am over 13 years of age

NOTE: Your inbox must accept emails from "no-reply@gatehousemedia.com"

Downloads

[Aerial spray map as of 8/5/10 \(132 KB\)](#)

Related Stories

[UPDATE: Aerial insecticide spraying postponed](#)

[Bridgewater, Middleboro, Raynham among towns that will receive heaviest mosquito spraying](#)

[Raynham officials urge precaution against EEE; support aerial spraying](#)

EPA Pesticide Program Updates
from EPA's Office of Pesticide Programs 08/04/2010
<http://www.epa.gov/pesticides>

IN THIS UPDATE:

1) EPA Soliciting Public Comments on 22 Bt Corn Plant-Incorporated
Protectant Registrations and Proposed Biopesticides Registrations Action
Documents

Today EPA is opening a docket and initiating a public comment period on our preliminary decision to amend the terms of twenty-two (22) expiring Bt Corn PIP (Plant Incorporated Protectant) registrations to extend the expiration dates. We have conducted comprehensive assessments of each of these registrations, considering all toxicity and environmental effects data, data from insect resistance monitoring, and insect resistance refuge compliance reports, since the last comprehensive evaluation of these products in 2001. Based on our comprehensive assessment, we have concluded that Bt corn PIPs have had a positive environmental impact, and we are proposing several actions to strengthen the insect resistance management requirements to ensure continued success in the prevention of the evolution of resistance in target pests.

Since the commercialization of Bt crops, there have been a significant number of published field studies that, combined with the post-registration field studies required by EPA, have demonstrated that non-target invertebrates are generally more abundant in Bt cotton and Bt corn fields than in non-transgenic fields managed with chemical insecticides. These published and registrant-produced studies demonstrate that, not only are the Bt crops not causing any unreasonable adverse effects on the environment, but arthropod prevalence and diversity is greater in Bt crop fields. Although no effects have been observed in the environment, the Agency is requiring additional aquatic invertebrate data in light of published laboratory studies showing reduced growth in shredding caddis flies exposed to Cry1A protein corn litter.

To strengthen insect resistance management of these corn PIPs and to address reports that compliance with the mandated refuge requirements has been decreasing, EPA is proposing to require enhanced compliance assurance programs and a phased requirement for seed bag labeling that clearly shows the refuge requirements. Also, given the increasing variety of PIP products and combinations and the differing risk of resistance evolution that the various products represent, we are proposing to grant registrations for the corn PIP products for different timeframes, based on assessments of their likelihood of forestalling the evolution of insect resistance. We are registering differing categories of products for differing time periods to reflect the assessed level of risk of resistance posed by the various corn PIP products. The scheme that we propose to follow will include registration periods generally of five, eight, and 12 years; with the possibility of a 15- year registration period for products that are demonstrated to meet specified criteria. We retain, however, the discretion to register products for time periods differing from these defaults where circumstances warrant.

The Agency's comprehensive assessments of the 22 expiring registrations may be accessed at <http://www.epa.gov/pesticides/regulating/registration->

status.html under the heading Plant Incorporated Protectants in Corn.
Comments on these documents will be accepted through September 3, 2010

From: U.S. EPA [mailto:usaepa@govdelivery.com]

Sent: Thursday, July 08, 2010 2:09 PM

To: aapco-sfireg@comcast.net

Subject: Compliance and Enforcement News Release (HQ): EPA Fines Monsanto for Distributing Misbranded Genetically Engineered Pesticide

CONTACT:

Stacy Kika

Kika.stacy@epa.gov

202-564-0906

202-564-4355

FOR IMMEDIATE RELEASE

July 8, 2010

EPA Fines Monsanto for Distributing Misbranded Genetically Engineered Pesticide

WASHINGTON - The U.S. Environmental Protection Agency announced that Monsanto Company Inc., of St. Louis, Missouri, has agreed to pay a \$2.5 million penalty to resolve misbranding violations related to the sale and distribution of cotton seed products containing genetically engineered pesticides. This is the largest civil administrative penalty settlement ever received under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

"This agreement shows that when a company violates the law by distributing misbranded pesticides, EPA will take action," said Cynthia Giles, assistant administrator for EPA's Office of Enforcement and Compliance Assurance. "The regulated community should understand that we take these violations seriously, and the public will accept nothing less than compliance."

"People who manufacture and distribute pesticide products must follow the federal registration requirements," said Steve Owens, assistant administrator for EPA's Office of Chemical Safety and Pollution Prevention. "These requirements are critical to preventing the development and spread of insect resistance."

Monsanto Bollgard and Bollgard II cotton seed products contain genetically engineered pesticides known as plant incorporated protectants (PIPs), which are registered as a pesticidal product under FIFRA. As a condition of the registrations, EPA included planting restrictions on Bollgard and Bollgard II, which contain the PIP *Bacillus thuringiensis* (Bt). EPA restricted planting of the cotton seed product in 10 Texas counties (Carson, Dallam, Hansford, Hartley, Hutchison, Lipscomb, Moore, Ochiltree, Roberts and Sherman) to protect against pests becoming resistant to Bt PIPs and other microbial products used in sprays and dusts. Monsanto was required to control the sale and distribution of the cotton seed by including information on the planting restrictions in its labeling and grower guides.

In 2007, Monsanto disclosed to EPA that it had distributed misbranded Bollgard and Bollgard II cotton seed to customers in the Texas counties where EPA had restricted its planting. EPA's subsequent investigation confirmed that between 2002 and 2007, the company distributed or sold the cotton products more than 1,700 times nationwide without the planting restrictions in its grower guides and that Bollgard and Bollgard II cotton was planted in the restricted counties.

Monsanto subsequently corrected the grower guides by including the required planting restriction for the Bollgard and Bollgard II products. In September 2008, EPA lifted the planting restriction in the 10 Texas counties for Bollgard II, after Monsanto applied for a change in the registration of that product.

More information about the Monsanto consent agreement:

www.epa.gov/compliance/resources/cases/civil/fifra/monsanto-infosht.html

More information about insect resistance management in cotton:

http://www.epa.gov/opppbd1/biopesticides/pips/bt_cotton_refuge_2006.htm

More information on the roles of EPA, USDA, and FDA in the federal regulation of genetically engineered plants:

<http://usbiotechreg.nbio.gov/>

Bees Can Mediate Escape Of Genetically Engineered Material Over Several Kilometers

ScienceDaily (Sep. 27, 2008) — A study by scientists from the Nairobi-headquartered international research centre icipe, in collaboration with the French Institut de Recherche pour le Développement (IRD) has established that bees have the potential to mediate the escape of transgenes (genetically engineered material) from crops to their wild relatives over several kilometres.

The findings, which have been published in the Proceedings of the National Academy of Sciences of 9th September, bear significant implications for the introduction of genetically modified crops in Africa.

The research, which was partly funded by USAID and the Rockefeller Foundation, was triggered by the planned release of insect-resistant genetically engineered cowpea in Africa, where cowpea's wild relative, *Vigna unguiculata* var. *spontanea*, is widely distributed. For the first time with insect pollinators, the scientists used radio tracking to determine the movements of the carpenter bee *Xylocopa flavorufa* and their implications for long-distance pollen flow.

“Bees can visit flowers as far as six kilometres away from their nest. From complete flight records in which bees visited wild and domesticated plant populations, we concluded that bees can mediate gene flow, and potentially allow transgenes to escape over several kilometres,” explains icipe scientist Remy S. Pasquet.

He adds that for genetically engineered cowpea in Africa, these results indicate that although pollen movement beyond a few hundred meters has a low probability, strict isolation by distance may not be feasible.

This research therefore confirms the widely held hypothesis that deploying genetically engineered cowpea in sub-Saharan Africa may mean that an escape of the transgene to the wild cowpea relative is inevitable.

Email or share this story:

| [More](#)



Bees have the potential to mediate the escape of transgenes (genetically engineered material) from crops to their wild relatives over several kilometres. (Credit: iStockphoto)

Story Source:

The above story is reprinted (with editorial adaptations by ScienceDaily staff) from materials provided by [ICIPE -- African Insect Science for Food and Health](#), via [AlphaGalileo](#).

First Evidence of Genetically Modified Plants in the Wild, Scientists Report

ScienceDaily (Aug. 6, 2010) — Scientists currently performing field research in North Dakota have discovered the first evidence of established populations of genetically modified plants in the wild.

Meredith G. Schafer from the University of Arkansas and colleagues from North Dakota State University, California State University, Fresno and the U.S. Environmental Protection Agency established transects of land along 5,400 km of interstate, state and county roads in North Dakota from which they collected, photographed and tested 406 canola plants.

The results -- which were recorded in early July and are set to be presented at ESA's Annual Meeting in Pittsburgh -- provide strong evidence that transgenic plants have established populations outside of agricultural fields in the U.S. Of the 406 plants collected, 347 (86%) tested positive for CP4 EPSPS protein (confers tolerance to glyphosate herbicide) or PAT protein (confers tolerance to glufosinate herbicide).

"There were also two instances of multiple transgenes in single individuals," said one of the study's coauthors Cynthia Sagers, University of Arkansas. "Varieties with multiple transgenic traits have not yet been released commercially, so this finding suggests that feral populations are reproducing and have become established outside of cultivation. These observations have important implications for the ecology and management of native and weedy species, as well as for the management of biotech products in the U.S."

The poster session "Evidence for the establishment and persistence of genetically modified canola populations in the U.S.," led by Meredith G. Schafer from the University of Arkansas, will be held Friday, August 6, 2010.

Email or share this story:

| [More](#)

Story Source:

The above story is reprinted (with editorial adaptations by ScienceDaily staff) from materials provided by [Ecological Society of America](#), via [EurekAlert!](#), a service of AAAS.

Beyond the Rows—a blog by Monsanto

At Monsanto

GM Canola on the Loose? Some Points to Consider

Aug 06, 2010 | Read | 4 Comments » Tags: Bayer, Canola, Ecological Society of America, Genetically Modified, GM, Liberty Link, North Dakota, Roundup Ready Canola



Author: **Mica**



Canola was originally bred in the 1970s, and is used as a food oil and as biofuel. Canola is also used as an animal feed and can be found in candles and lipsticks.

Have you ever seen a canola plant? It's a very pretty crop produced for its oil and distinguished by its bright yellow blooms. From a purely aesthetic point of view, it's not a bad plant to find growing as a weed along the roadside, which often happens. Some probably even mistake it for a wildflower. One department of transportation is purposefully planting it roadside.

Canola (and more specifically, GM canola) is the topic of a research survey described as "the first evidence of established populations of genetically modified plants in the wild." The survey was presented at the Ecological Society of America annual meeting today in Pittsburgh. To see Monsanto's official statement on the finding, [click here](#).

The researchers sampled 406 feral canola plants they found along 5,400 kilometers (or approx. 3,355 miles) of roadsides in North Dakota. "Feral" means the plants were growing in the wild, rather than as a crop in-field

The researchers collected, photographed and tested the 406 canola plants to see whether they were biotech (GMO). They found non-GM canola, Monsanto's Roundup Ready® canola as well as Liberty Link® canola (a Bayer Crop Science product).

Testing showed that 86 percent of the canola plants (or 347 of the 406) tested positive as either Roundup Ready or Liberty Link. The study also found two plants (0.7 percent) had both the Liberty Link and the Roundup Ready gene.

There are several pieces to consider here:



1. All types of canola – GM or not– can be found growing along roadsides or other areas near farm fields.

Most commonly, canola seed falls off trucks during transport between fields and elevators or processors. Canola seed is very small and light and can also be carried limited distances by the wind or by getting caught in farm equipment. Canola that is unwanted is commonly referred to as "volunteer" canola. Volunteer canola (which can also be organic, conventional or GM) can appear in farmer fields when they are growing other crops such as wheat, barley, peas, etc. The issue is how to get rid of the volunteer, which in these cases, is viewed as a weed because it's unwanted.

One way to manage roadside GM canola is through mowing, but Monsanto also provides information to farmers and other professionals on **alternative ways** to manage volunteer canola. Others are also researching ways to manage it as this Australian study, "Roadside Canola Won't Go Wild," shows.

2. A collection of roadside canola, unsurprisingly, is expected to reflect the makeup of nearby farmers' canola crops.

About 90 percent of the U.S. and Canadian canola crops are biotech varieties. A collection of volunteer canola would be expected to reflect this same proportion.



North Dakota accounts for 91 percent of the total 1 million acres of U.S. canola production.

3. The idea that GM canola would volunteer –just like traditional canola—was recognized and considered as part of the regulatory approval process by the **U.S. Department of Agriculture (USDA)** and the **Canadian Food Inspection Agency (CFIA)** in the mid-1990s.

Depending on where the volunteer canola was found, the agencies noted that it would require management.

When considering approval of Roundup Ready canola, USDA-APHIS found that nothing about the volunteer GM canola (and its offspring) would give it ability over traditional canola in the wild to outcompete other plant species. Following is language from the USDA Roundup Ready canola approval. The Liberty Link canola approval language is the same. Note that CP4 EPSPS refers to the Roundup Ready trait.

"In nature, the gene that results in accumulation of CP4 EPSPS and GOXv247 proteins will not provide glyphosate-tolerant canola or its progeny with any measurable selective advantage over non-transformed canola plants in their ability to disseminate or to become established in the environment. **There is no reason to believe that glyphosate-tolerant canola exhibits any increased weediness relative to traditional varieties.**"

USDA APHIS #98-216-01p (RT73, RR canola)

The agencies also considered the possibility that canola would cross with other species. The CFIA—while noting this was a concern for the long-term efficacy of glyphosate (Roundup) herbicides— concluded that these crosses are manageable using available agronomic practices and are not invasive species.

"If glyphosate tolerant individuals did arise through interspecific or intergeneric hybridization, the tolerance would not confer any competitive advantage to these plants unless challenged by Roundup® herbicide. This would only occur in managed ecosystems where Roundup® is applied for broad spectrum weed control, or in plant varieties developed to exhibit Roundup® tolerance and in which Roundup® is used to control weeds. As with glyphosate tolerant *B. napus* volunteers, these individuals, should they arise, would be controlled using other available chemical means. Hybrids, if they developed, could potentially result in the loss of Roundup® as a tool to control these species. This however, can be avoided by the use of sound crop management practices.

The above considerations led CFIA to conclude that gene flow from GT73 to relatives is indeed possible, but would not result in increased weediness or invasiveness of these relatives."

CFIA DD95-02 (RT73, RR canola)

4. Finally, as it relates to volunteer/roadside canola and saved seed and intellectual property, it has never been **Monsanto policy nor will it be to exercise patent rights where trace amounts of our patented seeds or traits are present in a farmer's fields as a result of inadvertent means.**

Monsanto's sole objective is to protect its patent rights where there has been a knowing and deliberate misappropriation of our technology.

What questions or comments do you have about this finding?

More resources:

[Green : A New York Times Blog – Roadside Invader: Engineered Canola](#)

[*Canola Council*](#)

[*U.S. Canola Association*](#)

[*Northern Canola Growers Association*](#)

[*Canola-info.org \(info on canola oil use in food\)*](#)

[*Canadian canola farmer talks about why he grows GM canola*](#)

Category: At Monsanto

Aug 06, 2010 | Read | 4 Comments » Tags: Bayer, Canola, Ecological Society of America, Genetically Modified, GM, Liberty Link, North Dakota, Roundup Ready Canola

Mica Veihman



I'm Mica Veihman, and I have worked in Monsanto's Public Affairs group for the last four years. I've been fortunate to provide communications support to various parts of our organization, including our oilseeds (soybeans and canola), herbicide, alfalfa and vegetable businesses. The most fun (and frustrating) part of my job is helping the highly skilled, knowledgeable and passionate people we have on staff communicate what they are doing to the rest of the world. Not an easy task, but a necessary one! As a mom, I'm especially interested in conversations and dialogue about the world's increasing population and resource challenges because of the impact on my children. When I'm not pulling my hair out over the latest Internet rumor, I'm happily chasing my firstborn – a boy – around the house. My husband and I love discovering great new restaurants as well as hosting barbecues for friends and family (he cooks, I clean). I also love to read, dance, run and water ski.



Roadside Canola Survey

August 5, 2010

We understand that a survey of roadside canola found in North Dakota is to be presented as a poster at the Ecological Society of America Annual Meeting this week.

“Those familiar with canola know that these plants are readily found on roadsides and in areas near farmers’ fields. This was true prior to the introduction of GM canola, and a common source is seed that has scattered during harvest and fallen off a truck during transport,” said Tom Nickson, Environmental Policy Lead at Monsanto. “Because about 90 percent of the U.S. and Canadian canola crop is biotech, it is reasonable to expect a survey of roadside canola to show similar levels of biotech plants.”

“Indeed, in their evaluation of Roundup Ready canola in the early to mid 1990s, the U.S. Department of Agriculture (USDA) and Canadian Food Inspection Agency (CFIA) recognized that, like traditional canola, biotech canola would volunteer, and depending on where it was found, might require management,” Nickson said.

“While much roadside canola is managed simply through mowing, Monsanto provides farmers and other professionals who use our products information on managing plants like volunteer canola,” he said.

Some of those suggestions can be found at [Monsanto Canada’s web site](#).

Also see Monsanto’s Beyond the Rows blog: [GM Canola on the Loose? Some Points to Consider](#)

[A farmer talks](#) about the benefits of using Roundup Ready canola; [another farmer](#) talks about the benefits of GM canola for society.

Couple launches Adopt An Organic Field program in Kensington

Gets town to switch to organic treatment of fields

By **KATHLEEN D. BAILEY**

newsletter@seacoastonline.com

August 17, 2010 2:00 AM

KENSINGTON — Resident Felicia Motherway was driving by the newly built Sawyer Park a couple of years ago when she saw "that stupid yellow sign" advising park users that pesticides were being applied to the sports fields. The yellow sign made Motherway see red.

"I realized that my kids — and thousands of other kids — would be using these fields. That it would be affecting the wetlands, the soil," she said.

Motherway and her husband, Mike, didn't let that happen. With the support of the town, they have taken the park in a different direction — that of all-organic lawn and field care. They've even found other people to pay for it, with their Adopt An Organic Field program.

The park used to be much smaller, Mike said.

"A few years ago a family in town donated some land, and it was expanded" from two baseball fields and a small park area to three baseball fields, a soccer field, a pavilion and more park area.

"We began to wonder, 'How can we care for this park?'" Mike recalled.

There was an initial "knowledge piece," and then he and other interested residents determined to find people and companies to adopt pieces of the park. But there also needed to be a conversation about "how to manage a park with a lot of lawn in a responsible way."

The trustees of the park engaged Chip Osborne of Marblehead, Mass., an organic turf consultant, to guide the town in the best practices. Osborne regularly meets with residents, and on a recent Tuesday night, held an informal Q&A in the pavilion.

Chris White of Milford, owner of Firebelly Lawn Care, attended.

"Our 'field' is the one across the street," he said.

Maria Shute, owner of the Dover-based Cockadoodle Doo, has also adopted an area, she said. Her firm manufactures organic fertilizer.

Osborne discussed organic lawn care with a handful of interested residents and Dave Coulter, a maintenance person at the Sant Bani private school who had traveled from Sanbornton to get ideas. Children tumbled on the grass behind the pavilion or played pick-up soccer games, on a lawn that looked similar to "manicured" suburban lawns.

Osborne gave a brief history of the commercial pesticide industry, saying it did not exist until after the World War II. Chemicals developed during the war were introduced into the homeowner's arsenal of products, he said.

Fifteen years ago, organic lawn care was "on the fringe," Osborne said. But now Scott's, Ortho, and even Home Depot and Lowe's have organic lines.

Skeptics' main objections to organic care, attendees agreed, was that "it's expensive and it doesn't work." But Osborne has done studies, as well as testifying before the N.H. Legislature, and said "natural organic management" of a sports field costs more than chemical — in its first year. By the third year they're equal in cost, and by the fifth year, the organic program is an average of \$900 less.

"When it becomes sustainable, you have less 'input,'" Osborne said.

Felicia said the town did use organic care in the second year of the park, 2009. The town received a grant of \$4,999 from the N.H. Department of Agriculture, Markets and Food to continue the work of improving the soil and the grant was renewed this year, enabling the town to hire Osborne as a consultant.

It's a matter of education on all levels, Felicia said. For example, they had to convince their groundskeeper not to bag the clippings, but to use them as mulch.

"We said, 'Take the bags off and mow!'" she recalled.

"It's a process," Mike said. "It's a mindset change. We need to get people to look at other possibilities."

In addition to Cockadoodle Doo and Firebelly, sponsors include Timberland, Purely Organic of York Harbor, Maine, Coast of Maine organic products, Bio Spray, J. Gil Organic Landscaping, Avenger Weed Killer, Dodge's Agway, Neptune's Harvest, Espoma, St. Gabriel Organics, Bradfield Organics, Chickity Doo Doos, TLC Organic Lawn Care and the state Department of Agriculture.

This copy is for your personal, noncommercial use only. You can order presentation-ready copies for distribution to your colleagues, clients or customers [here](#) or use the "Reprints" tool that appears next to any article. Visit www.nytreprints.com for samples and additional information. [Order a reprint of this article now.](#)



August 16, 2010

Exclusive Golf Course Is Organic, So Weeds Get In

By **BILL PENNINGTON**

EDGARTOWN, Mass. — Standing alongside the 13th green at the Vineyard Golf Club on Martha's Vineyard, Jeff Carlson spotted a small broadleaf weed between his feet. As the superintendent charged with maintaining the club grounds, he instinctively bent to pluck it, then stopped.

"We have a weed here or there," he said unapologetically.

It was the rarest acknowledgment in American golf course landscaping — the [Vineyard Golf Club](#) is not meant to be as unnaturally perfect as many of the country's best-known courses.

Opened eight years ago, the club is thought to be the only completely organic golf course in the United States, its 18 holes groomed without the use of a single synthetic pesticide, fertilizer, herbicide or other artificial chemical treatment.

"When we started here, some of my peers thought this golf course would be a dust bowl," Carlson said, walking across a lush, smooth green toward a rolling, verdant fairway. "I admit I wasn't so sure it could be done myself. People said we were crazy."

The club has a more prominent endorsement now. The nation's first golfer, [President Obama](#), is expected to play here while vacationing this month, after playing the course twice last year.

With golf courses increasingly being criticized for environmentally unfriendly practices, the Vineyard Golf Club has become a petri dish for alternative maintenance techniques. Carlson has learned to kill weeds with boiling water and a natural foam cocktail and to remove moss with kitchen dish detergent, and he has transported microscopic worms from Iowa to attack turf-ruining grubs. He has disrupted the mating cycle of damaging oriental beetles with a strategically placed scent and has grown grass that he believes is more resistant to disease because it developed without chemicals.

The staff at the Vineyard Golf Club are now seen as environmental pioneers, with many in the

golf industry examining their methods. The club's organic model could become the successful experiment that helps push thousands of courses toward using fewer pesticides, less water and more natural grass-growing procedures.

"Everyone won't be able to go fully organic, but we're proving you can severely cut back on synthetic chemicals," Carlson said.

When the Vineyard Golf Club opened, it was the first club in 30 years built on Martha's Vineyard, where the wealthy, many of them environmentally conscious but also accustomed to playing on chemically enhanced private courses, have long kept summer homes.

Opposition to the project on this liberal-leaning island was fierce. It helped the project that the land was also zoned for a 148-lot subdivision. The Martha's Vineyard Commission eventually allowed the course to be built with conditions prohibiting the use of any product whose active ingredient was synthetically produced.

Bill Wilcox, a water resource planner for the commission, called the club a good neighbor and said he knew of no major complaints against it.

Although the club is private, with 288 proprietary members — the initiation fee is \$350,000 with annual dues of \$12,000 — the deal with the commission includes a condition that 125 island residents be accepted as members with no initiation fee and annual dues of \$725.

Carlson, 61, had experience building a golf course with conservationists watching, having worked with the noted architect Michael Hurdzan during the 1990s in the creation of the Widow's Walk Golf Course in Scituate, Mass. That course is known as America's first environmental demonstration course, although it was maintained with some synthetic materials.

"Nobody had tried what we were trying," Carlson said.

Cruising the Martha's Vineyard club on a golf cart last week, Carlson recalled one of his earliest jobs in the business, in which he mixed mercury-based fungicides by hand, occasionally near the on-course house where he lived with his wife, Kathy.

"Kathy has beautiful, thick red hair, and it started to fall out," he said. "She went to the doctor, who did some tests and was told she had heavy-metal poisoning. Obviously, I stopped using that stuff. All these years later, it has been kind of satisfying to be trying something so very different."

In the golf community, there is no clear definition of what constitutes an organic course. A 79-

page report prepared by a consortium of golf and environmental experts proposed definitions earlier this year but did not settle the issue. The report listed about two dozen courses that call themselves organic, but noted that most used some synthetic chemical pesticide, fertilizer or wetting agent.

“The Vineyard Golf Club has gone further than anyone organically, especially for that level of golf course and considering what they’ve achieved over the years,” said Paul Parker, the chief author of the report.

When Vineyard Golf Club opened in 2002, Carlson was in hand-to-hand combat with fungal diseases, insects, grubs and the skunks, crows and raccoons that tore up the turf to get to the grubs. There was also the matter of teaching the membership that nothing in the rules of golf mandated that the game always be played on green grass.

“We had to promote the notion of playability rather than visual perfection,” Carlson said.

Still, the grubs were particularly vexing. A synthetic insecticide application would have made things easy. But Carlson discovered a specific kind of beneficial nematode, a roundworm that would attack the grubs from within the soil. It occasionally meant flying in the nematodes from Iowa packed in dry ice.

When it came to the skunks, crows and raccoons, the club went old school. It turned to a retired local fisherman — whom some have compared to Carl Spackler, the character played by Bill Murray in the golf movie “Caddyshack” — who was known on the island for his ability to trap and remove those creatures.

Nothing at the Vineyard Golf Club, now in its ninth season, is left to chance. To prevent fungal disease, crews go out daily at dawn using a long, whip-like device that whisks condensation off the grass throughout the course’s 69 acres. And visitors have their shoes cleaned before they play to keep contrary grass seeds or diseases from infiltrating the fairways and greens. The club’s maintenance labor budget is higher than those of most clubs its size, but Carlson said his net costs were the same “because of the money we save on traditional pesticides, which are very expensive.”

The Vineyard Golf Club greens are devoid of weeds or major blemishes, and they roll true and consistent. The fairways have patches of crabgrass and clover that are barely noticeable. What is most obvious in a walk of the holes is a striking and scenic layout pocked with deep, distinctive sod-faced bunkers designed by the British architects Donald Steel and Tom Mackenzie.

“Yes, it is not perfect out there, but even if your ball comes to rest next to a shaved-down

broadleaf weed, it's not going to affect your shot," said Gene Mulak, the club's golf pro.

Private golf course members are notoriously hard on superintendents, but Carlson says those at the Vineyard Golf Club are "real environmental pioneers because they put down the money for this experiment."

Sally Rorer, a charter member, said members were proud of the club's organic approach.

"It makes it easier to put a sandwich down on the ground between shots, too," she said.

What practices and techniques might be transferable from Martha's Vineyard, where golf courses are generally open only eight months a year, to other parts of the country is debatable.

"Most golf courses wouldn't make it with an approach so organic, especially year after year with changeable weather," said James Snow, the national director of the United States Golf Association's Green Section. "But over time, we're going to be using less synthetics, and that's a good thing."

These days, walking past the occasional weed, Carlson has moved on to other goals.

"We're trying to be like any other golf course," he said. "I don't want people to come here and say, 'That was a real good golf course for an organic golf course.'"

"I hate hearing that."

The Salt Lake Tribune

State says a deal is close in pesticide-poisoning case

By JUDY FAHYS

The Salt Lake Tribune

August 17, 2010 11:11AM

The Utah Department of Agriculture said Monday it is close to reaching a settlement with the pesticide company linked to the pesticide-poisoning deaths in February of two Layton girls.

Department of Agriculture and Food spokesman Larry Lewis said there was “nothing official,” but verbal agreements had been made Friday.

“Nothing in writing at this point,” said Lewis. “We plan to report to you the official agreement(s) when it occurs.”

Bugman Pest and Lawn and six employees face fines and other penalties after state pesticide regulators alleged more than 3,500 instances when the Bountiful company and its crew broke laws between April 2009 and February 2010. Many of the charges simply involved paperwork, while others represented the misuse of dangerous pesticides.

An alleged misapplication of an aluminum phosphide pesticide called “Fumitoxin” was blamed for the deaths in February of 4-year-old Rebecca Toone and her 15-month-old sister Rachel. It was the seventh time in 10 months Bugman employees had allegedly used too much Fumitoxin and the sixth time it applied the poison dangerously close to northern Utah homes, according to state administrative charges filed in April.

Coleman Nocks, the employee who used Fumitoxin on Feb. 5 to exterminate field mice at the Toone home, is scheduled to appear in 2nd District Court this morning in connection with two counts of negligent homicide, a class A misdemeanor.

In an interview with KSL on Monday night, Nocks said he his haunted by the deaths of the two girls.

“You just never get over it,” he said. “... I send my deepest sympathies to the family.”

Meanwhile, a hearing is scheduled for later this month on the state’s administrative allegations against the company and the seven employees.

The U.S. Environmental Protection Agency banned the use of aluminum phosphide near homes a few weeks after Rachel and Rebecca Toone died.

This copy is for your personal, noncommercial use only. You can order presentation-ready copies for distribution to your colleagues, clients or customers [here](#) or use the "Reprints" tool that appears next to any article. Visit www.nytreprints.com for samples and additional information. [Order a reprint of this article now.](#)

DIRECTOR OF
THE WRESTLER
& REQUIEM
FOR A DREAM

June 24, 2010

Legislature Passes Bedbug-Notification Law

By **CARA BUCKLEY**

A bill passed by both houses of the State Legislature on Thursday would require New York City landlords to tell prospective tenants about a building's recent bedbug history.

Under the measure, which will become law once Gov. David A. Paterson signs it, landlords must inform incoming tenants whether the apartment under consideration or another in the same building had been infested within the previous year.

"Bedbugs are bipartisan when it comes to snacking on blood," said the bill's prime sponsor, Assemblywoman Linda B. Rosenthal, a Democrat from the Upper West Side. "So it's a bill that appeals to everybody regardless of political affiliation."

If the measure becomes law, landlords will have to include disclosure forms when they hand over vacancy leases, in a process to be overseen by the State Division of Housing and Community Renewal.

The bill passed despite opposition from some Republicans who, Ms. Rosenthal said, argued that the disclosure would stigmatize buildings and drive property values down.

Complaints about bedbugs have soared in New York City in recent years. According to the city's Department of Housing Preservation and Development, nearly 11,000 calls about bedbugs were made to the city's 311 help line, compared with 537 in the fiscal year 2004. The number of confirmed infestations has also risen sharply, to 4,084 last year from 82 six years ago.

Ms. Rosenthal said she wrote the bill after being flooded with complaints from constituents and friends who had been besieged by bedbugs. She said she hoped to introduce a similar disclosure bill next year that would apply statewide.

She has also introduced a bill that would give bedbug victims a 15 percent credit on the state personal income tax, for up to \$750, to compensate for replacing furniture infested by bedbugs, though said she did not anticipate that bill's passing until the state attains economic health.

Earlier this year, the National Pest Management Association (NPMA) and the University of Kentucky surveyed U.S. and international pest management companies about the state of the bed bug resurgence. The findings presented here suggest a growing global pandemic that necessitates urgent action by stakeholders.

BUGS WITHOUT BORDERS – EXECUTIVE SUMMARY

Defining the Global Bed Bug Resurgence

By Michael F. Potter, Bob Rosenberg and Missy Henriksen

Bed bugs are a hot topic these days throughout the news media and the industry alike. While most industry observers agree that infestations are increasing, the magnitude of the problem and its international implications lack definition. With its enormous customer base, the global pest management community is uniquely equipped to provide such insights. In a sobering report from almost 1,000 companies, this study shows that bed bugs are escalating worldwide, and that society is ill-prepared to deal with the consequences.

SURVEY PARAMETERS. Two online surveys were developed: the first consisting of 43 questions aimed at pest control companies in the United States; the second containing 34 questions for companies operating internationally. Both questionnaires covered topics ranging from frequency of bed bug infestation, to management methods, to business practices. Questions were formatted either as open-ended or closed-ended (fixed) responses. The survey was conducted from January to April, 2010. Letters requesting participation were emailed to approximately 6,000 U.S. and 900 international pest management companies, resulting in 521 and 429 completed surveys, respectively (950 total responses).

Respondents from 43 countries represented firms ranging in size from fewer than 10 to thousands of employees. After the U.S. which had 521 respondents, the greatest number of completed surveys came from Latin America (208 respondents), Europe (113) and Canada (64), followed by Asia (26) and Africa/Middle East (10). Additional regions included Australia (4) and various smaller markets with fewer responses. Respondents from all regions of the world characterized their principal service sector as “urban,” followed usually by “suburban,” then “rural.” Among U.S. firms, the average ratio of work performed was 60% “residential” and 40% “commercial;” elsewhere in the world, however, commercial work exceeded residential.

QUANTIFYING THE RESURGENCE. The first series of questions examined the extent to which bed bugs are increasing throughout the world. An overwhelming 95% of U.S. respondents indicated their company or organization encountered a bed bug infestation in the past year, with similarly high frequencies reported for Canada (98%), Europe (92%) and Africa/Middle East (90%). The majority of respondents also encountered bed bugs during the past year in Mexico/Central America (80%), Asia (73%), and South America (59%). A higher percentage of respondents across regions reported encountering bed bugs at least once in the past year vs. “over five years ago” or “over 10 years ago” When asked if the incidence of bed bugs in their country/region was

increasing, decreasing or staying about the same, a higher percentage of respondents from Latin America (including Mexico/ Central America and South America) felt infestation levels were staying “about the same,” relative to those dealing with bed bugs elsewhere in the world.

Many respondents had opinions as to why bed bugs are increasing — most often mentioned were increased travel, more immigration, changing pest control products and methods, and resistance to available insecticides. Another factor noted by many respondents throughout the world was a lack of societal awareness and precautions (e.g. inspecting one’s bed or shunning discarded furniture). As expected, many respondents also blamed the global resurgence of bed bugs on the loss of once-available more effective insecticides.

Other factors mentioned as contributing to the resurgence included:

- Overcrowding of cities, leading to poor hygiene and sanitation
- Unregulated sale, donation, importation and smuggling of second-hand clothing and mattresses
- More clutter and belongings in which the bugs can hide; conducive building and decorating practices, and transience and turnover of occupants
- Denial/lack of incident reporting by tenants, workers, landlords, hotel or business management, universities, etc.
- Economic expansion in developing countries, enabling more people (living with bed bugs) to travel
- Soldiers returning home from conflicts in Africa, Iraq and Afghanistan
- Global health officials focusing their efforts on disease vectors rather than bed bugs
- Changes in indoor treatment for disease-carrying mosquitoes, including reliance on pyrethroids and short-lived ULV applications that are less effective against bed bugs
- A worldwide decline in preventive inspections/treatments of hotels, apartments, etc. for pests including bed bugs
- Changing lifestyles, resulting in greater reliance on communal laundries rather than washing items at home
- A global increase in secondary hosts, including rodents, poultry, dogs and cats.

Whatever the reason(s), the statistics clearly show that bed bugs are increasing throughout most of the world, which comes as no surprise to professionals in the pest management industry. In a previous survey of U.S. pest control firms (Potter 2008a), 6% of respondents said their companies performed more than 100 services for bed bugs during the previous year. In the more recent survey, conducted two years later, 20% of U.S. respondents reported their company doing more than 100 bed bug jobs last year and 7% reported doing *more than 500*. Other areas of the world where many respondents reported doing hundreds of bed bug jobs last year included Africa/Middle East (60% of respondents), Canada (37%), Asia (20%), and Europe (13%).

SHOWING UP EVERYWHERE. Bed bugs are appearing almost everywhere, from homes to hospitals to high-end clothing stores. In the U.S., the greatest percentage of respondents said they've encountered infestations in apartments and condominiums (mentioned by 89%), single family homes (by 88%), and hotels/motels (67%). Several also said they found bed bugs in college dormitories (mentioned by 35%), homeless shelters (31%), nursing homes (24%), office buildings (17%), hospitals (12%), and primary/secondary schools (10%). When U.S. firms were surveyed a few years ago, half as many respondents found them in hospitals and schools, and less than 1% mentioned finding them in office buildings.

Other 'atypical' places where U.S. respondents reported finding bed bugs included public transportation (by 9%), laundries (5%) and movie theaters (4%) — as well as in churches, day cares, libraries, summer camps, hostels, furniture and retail stores, restaurants, locker rooms, dressing rooms, prisons, fire and police stations, moving vans, ambulances, funeral homes, and doctor's offices.

The resurgence of bed bugs in such varied places should not be too surprising. In the 1930s and '40s, infestations were common in hospitals. Entire sections of seating were infested in movie houses. Bed bugs also were common years ago on trains, buses and taxicabs. In Sweden in the 1930s, almost half of all moving vans inspected had bed bugs, and a subsequent survey in Iceland showed that bed bugs were often found inside televisions and radios being serviced by appliance repair shops (Potter 2008b). The remarkable ability of this pest to "hitchhike" from one place to another means they can materialize almost anywhere...from a restaurant booth to a blood pressure cuff.

When asked if they felt there was a correlation in their country between bed bugs and poverty, respondents to our survey were split, with differing opinions by region. In the United States, for example, 55% of respondents said that "problems tend to be worse among the poor" while 45% said "all citizens are equally affected." A wider discrepancy occurred amongst respondents from Europe, with 77% insisting that bed bugs affected all citizens equally regardless of socio-economic standing. Nowadays, even five star hotels and high-end clothing stores are susceptible to infestation, but historically the poor have suffered the most from bed bugs. This pattern, unfortunately, shows signs of repeating with the resurgence of the pest. Individuals from lower socio-economic groups often cannot afford to hire a professional to handle an infestation, nor are they as willing to discard infected items.

PUBLIC ATTITUDES. When U.S. firms were asked to describe the feelings of clients who have had bed bugs, 99% of respondents felt their customers were "upset and concerned," with 77% saying such customers were "very upset and concerned." Similar distress over bed bugs was echoed around in the world.

The emotional strain of living with bed bugs should not be taken lightly, especially by those who have not experienced infestation personally. Some suggest that being bitten by bed bugs is no worse than being bitten by ticks or mosquitoes. This rationale overlooks the fact that in the developed world, ticks and mosquitoes bite and breed mostly outdoors.

Bed bugs, however, dwell in one of the most intimate spaces of the home environment; the bed. Dismissing the gravity of bed bug resurgence on the basis that these pests are unproven disease vectors ignores the pain, suffering and emotional toll inflicted on their victims.

Bed bugs are so reviled that people seem willing to do anything necessary to eradicate the pests. More than half (51%) of U.S. respondents estimated that 50% or more of their customers tried to treat their problem themselves before calling a professional. Pest control firms reported seeing many ineffective and potentially dangerous measures used by do-it-yourselfers, including ammonia, bleach, fire, smoke, kerosene, wasp spray, and bug bombs, as well as ~~professional use pesticides~~ concentrated pesticides bought on the internet. As bed bug victims become more desperate, serious injury may result from such applications, especially among those who choose not to hire a professional. These types of behaviors suggest an increasing need for public education on the subject.

CONTROLLING INFESTATIONS. The majority of respondents from the U.S., Canada, Europe, Africa and Australia felt that bed bugs are difficult to control — more so than cockroaches, ants and termites. In the U.S., 76% found bed bugs more difficult to control than ants (considered “most difficult” by 13% of respondents), cockroaches (by 9%), and termites (by only 2%).

DOES THE SEASON MATTER? Respondents were also split when asked if they received more bed bug calls at certain times of the year. Outside the U.S., 55% saw no seasonal pattern to their bed bug calls while 45% said that they did; among those who did, three fourths (75%) said their company received more calls about bed bugs during the summer. In the U.S., 72% of respondents felt there was no busier time of the year for bed bugs; of those who felt there was a seasonal pattern, however, summer was again mentioned as the busiest season (48%). Several respondents also mentioned they received more bed bug calls after holidays, vacations, and completion of the school year when children return home.

CLOSING THOUGHTS. As the most detailed portrait of bed bug resurgence to date, this study confirms that infestations are increasing worldwide, although in some areas (e.g., Latin America), the upsurge is less evident. Many factors are fueling the growing global pandemic of bed bugs—but it remains a mystery why we’re seeing such an abrupt increase after years of scarce encounters.

Infestations are showing up in all the same places they did years ago — from poor house to penthouse, schools to surgical suites, cubicles to clothing stores. Perhaps most unsettling about 21st century bed bugs from a societal standpoint is that we are in uncharted waters. There will be new challenges this time around including unprecedented movement of people from across town and around the globe; more clutter and belongings in which bugs can hide; less potent insecticides for both householder and professional use; and a mindset today that when someone is harmed they should sue.

Bed bugs are increasing across the globe and without bias for highly developed or currently developing nations. The crux of bed bug management, however, remains hard work, public education, and constant vigilance to prevent or detect infestations in the early stages.

Michael F. Potter is a professor and urban entomologist at the University of Kentucky, Lexington, Ky. Bob Rosenberg and Missy Henriksen are Senior Vice President and Vice President of Public Affairs, respectively, for the National Pest Management Association, Fairfax, Va. Special thanks to Max McKenzie and Megan Potter who were instrumental in compiling and conveying outcomes of the study.

References

Potter, M.F. 2008a. "The business of bed bugs," *Pest Management Professional*. 76(1): 24-40.

Potter, M.F. 2008b. "The history of bed bug management: lessons from the past," *Pest Control Technology*. 36(8)

Sun Journal

[City](#)

Bedbugs plague apartments, tenants

By Lindsay Tice, Staff Writer

Published Jul 29, 2010 12:00 am | Last updated Jul 29, 2010 12:00 am

LEWISTON — Ron LeBlanc has been dealing with bedbugs for three years.

As a Lewiston landlord, he's seen the tiny bloodsuckers invade single bedrooms, entire apartments and whole buildings. The bugs bit tenants and made their lives miserable. LeBlanc spent thousands on exterminators to spray his units with poison. But bedbugs are notoriously hard to kill.

Sometimes, the spray worked. Other times, it didn't.

The problem has gotten worse.

"I'd say 80 percent of Lewiston is infested," LeBlanc said.

The bedbug situation has become so bad that LeBlanc and business partner Rick LaChapelle recently traveled across the country and spent \$65,000 on a machine designed to superheat infested homes and kill the bedbugs inside. Since the pair got the machine a month ago, they've superheated about 20 homes — both their own apartment buildings and those owned by others.

So far, superheating seems to have worked where spraying failed. At least the men, their clients and their tenants hope so.

Bedbugs are in Maine and the desperation to get rid of them is growing.

"In the past two or three months, bedbugs have totally exploded," LeBlanc said. "It's gone crazy."

Bedbugs are apple-seed-sized insets that feed on human blood. They tend to infest beds and bedrooms, but they also hide in walls, under floorboards, in piles of clothes and inside couches. Because bedbugs are so tiny, it can be difficult to see them. Some people don't realize their homes are infested until they find themselves covered in itchy red welts or discover that their bare mattresses look like they've been sprinkled with pepper — dried blood-waste left behind from the bedbugs' previous meals. Although bedbugs don't spread



Ron LeBlanc, right, speaks with his son, Tony, outside an apartment on Oxford Street in Lewiston as they use a portable propane furnace to eradicate the unoccupied space of bedbugs on Wednesday. "The Oven," as they call the device, heats a space to almost 160 degrees for most of a day to kills the pests and their eggs.

- Amber Waterman/Sun Journal

[Buy a Print](#)



disease, they can make sleeping nearly impossible and their bites can cause itching.

Nationally, bedbug infestations have been on the rise. The insects have increasingly been found in hotels and department stores, as well as homes and apartment buildings. The problem has become so common that the website BedBugRegistry.com has popped as people tell their horror stories and track bedbug infestations in hotels and apartments.

Bedbugs have been creeping into Maine for the past five years and into Lewiston-Auburn for the past three or four, hitching a ride on clothes, in suitcases and in used furniture. Infestations have nothing to do with cleanliness.

"We did one old guy and his apartment was spotless," LeBlanc said. "It was the worst infestation I've seen."

Housing officials in Lewiston and Auburn have seen a rise in bedbug complaints in recent years. Jim Dowling, executive director of the Lewiston Housing Authority, estimated that his agency spends in the low tens of thousands each year trying to kill the bugs with chemicals.

"Our experience in dealing with various pest-control companies and in attending educational workshops on how to deal with bedbugs, it does seem like this is an expanding problem and the best way to eradicate bedbugs is still developing," Dowling said. "In other words, there's no magic bullet. No one knows what works best, exactly how to do it."

But landlords must try to deal with the problem. A new Maine law, effective this month, requires landlords to inspect a building within five days of tenants reporting bedbugs. If bedbugs are found, the landlord has 10 days to contact a pest control agent to treat the problem. Before renting a unit, landlords must tell a prospective tenant if any adjacent units are infested or are being treated for an infestation. And if a prospective tenant asks, the landlord must tell when the unit was last inspected for bedbugs. Landlords are prohibited from renting apartments they know or suspect have bedbugs.

Bedbugs can cost hundreds to thousands of dollars to eradicate from a single apartment unit. Chemical sprays are among the most common ways to get rid of them, but sprays have strict preparation guidelines, including washing, drying and sealing away some belongings, and residents don't always follow those guidelines. Even when they do, the spray can take several applications. And it may not kill every bug.

Atlantic Pest Solutions, which has offices in Brunswick and Arundel, likes other methods, including using dogs to sniff the precise location of the bugs. If the company finds bedbugs have infested a piece of furniture, it has a mobile heat truck that can superheat that piece of furniture. Bedbugs are attracted to heat

Ron and Tony LeBlanc monitor the temperature from probes inside the walls of an apartment on Oxford Street in Lewiston as they eradicate bedbugs and their eggs.

- Amber Waterman/Sun Journal

[Buy a Print](#)



Ron LeBlanc adjusts a fan inside an apartment on Oxford Street in Lewiston as he and his son, Tony, use a portable propane furnace to eradicate the unoccupied space of bedbugs Wednesday. "The Oven," as they call the device, heats a space to almost 160 degrees for most of a day to kill the pests and their eggs.

- Amber Waterman/Sun Journal

[Buy a Print](#)



Ron and Tony LeBlanc monitor the temperature from probes inside an

— such as the heat of the human body — but they die in temperatures higher than 113 degrees.

For more widespread infestations, Atlantic Pest Solutions superheats whole homes. But superheating takes some preparation and has its own challenges.

"It's not as easy as rolling in heaters and cranking up the temperatures," said owner Ted St. Amand.

Although residents don't have to seal away any belongings, they do have to remove medications, aerosol cans, paintings, cosmetics and other items that could be harmed by the heat. They and their pets must stay away for much of the day, then deal with an overly-warm home as the place cools down. And superheating can be slightly more expensive than spraying — \$1,200 for a single apartment unit compared to \$1,000 to spray two.

But while there are some challenges with superheating, and its full effectiveness is still being judged, it seems to do in one application what chemical spraying can't guarantee in several — kill bedbugs.

"I would tell you, if it was my house and I had bedbugs, I would definitely go with the heat. No doubt about it," St. Amand said.

LeBlanc and LaChapelle went with heat for their buildings. After spending thousands on spraying, they did some research and decided to give superheating a try.

With a 1.2 million BTU propane heater dubbed "The Oven," the men can heat rooms, apartments or whole buildings to 140 degrees or more. They pump the superheated air into the building through vents attached to the windows. The building is pressurized to ensure the heat seeps into walls, floorboards and other cracks and crevasses. And to make certain the building gets hot enough without getting too hot, workers constantly monitor temperatures using wireless sensors and computers.

It can take a furnished apartment three to five hours to get up to temperature. Workers keep it there for another three to five hours to ensure all bugs are dead. It then takes about 30 minutes to cool the building enough to re-enter.

LeBlanc recommends people launder fabrics and vacuum to get rid of the dead bugs. He also tells them to be careful about returning items to the apartment, since a backpack, for example, can harbor the bugs and reintroduce them into the space. But aside from that, he said, there's little else residents need to do.

He has so far been impressed by the heating. It's done what he hasn't been able to do for three years.

"It feels so good," he said. "Right now, we're bedbug-free."

from probes inside an apartment on Oxford Street in Lewiston as they eradicate bedbugs and their eggs with heat.

- Amber Waterman/Sun Journal

[Buy a Print](#)



The LeBlancs' portable furnace houses a 1.2 million BTU propane furnace that can heat a building upward of 160 degrees Fahrenheit.

- Amber Waterman/Sun Journal

[Buy a Print](#)



Ron LeBlanc checks a thermostat inside an Oxford Street apartment in Lewiston that reads 144 degrees Fahrenheit.

- Amber Waterman/Sun Journal

[Buy a Print](#)

August 7, 2010

This Bedbug's Life

By MAY BERENBAUM

Urbana, Ill.

I had been a professor of entomology for 15 years before I saw my first live bedbug. It crawled out of a plastic film canister that had been mailed to me by a distraught student in the Boston area who had no idea what it was. I was so thrilled to see a live bedbug, I showed it off to every graduate student I ran into that day: *Cimex lectularius* — a small, flat, wingless, brown ectoparasite that hides in cracks and crevices in human dwellings and emerges under cover of darkness to feast on human blood.

That was in 1995, and none of my students had laid eyes on *Cimex lectularius* either. A century ago, bedbugs were ubiquitous in New York — so much so that their presence in an apartment wasn't considered sufficient legal cause for withholding rent. Bedbugs, one judge remarked in an early 20th century lawsuit against a landlord, "can be dealt with by the tenant by processes known to all housewives." But with the midcentury advent of synthetic organic insecticides, these insects all but vanished from urban landscapes (and pretty much every other kind of landscape) in North America.

My Bostonian bug turned out to be one of many on the forefront of an unprecedented resurgence. Global travelers now bring in a steady supply from around the world, inconspicuously undeclared in checked bags and carry-on luggage. Today, bedbugs have been found in all 50 states, as well as Guam, Puerto Rico and American Samoa, and bedbug-related calls to pest control operators are escalating at a fantastic rate. From June 2009 to June 2010, there were more than 31,000 calls in New York City alone.

Now, bedbug-related lawsuits can lead to thousands of dollars in punitive damages for mental anguish, embarrassment or humiliation.

Everywhere New Yorkers go — theaters, stores, offices, schools, trains, ships, hospitals — bedbugs go, too, hidden in folds of clothing, bags, backpacks and purses. Getting rid of them has become more than any housewife could ever be expected to handle. Even professional pest control operators are struggling to keep up, because bedbugs have become, for the most part, resistant to the old pesticides that once were so effective, and relatively few viable chemical alternatives exist.



We reserve a special kind of enmity for bedbugs because, though humans generally do not like being anywhere other than at the pinnacle of a food chain, there is a particular horror associated with being consumed while relatively helpless, asleep in what should be the security of one's own bed (or chair or couch). With bedbugs, it's personal — unlike cockroaches, ants, silverfish and other vermin that are attracted to our possessions, bedbugs are after us. And they're remarkably adept at circumventing our defenses: They not only attack while we sleep, but they also inject anesthetics, so as not to awaken us, and anticoagulants, so that in every 10-minute feeding they can suck in two to three times their weight in clot-free blood.

Bedbugs win neither praise for their sophisticated technique, nor very much respect for the fact that they don't carry diseases, as most bloodsucking human ectoparasites do. Although their bites can cause unrelieved itchiness, bedbugs take only blood and leave no pathogens behind. In contrast, lice spread typhus; mosquitoes carry the viruses that cause yellow fever, dengue, encephalitis and West Nile disease; ticks transmit the Lyme disease bacterium; and fleas can bring the bacterium that causes plague.

But lack of involvement in spreading disease is hardly an endearing attribute. In fact, precious few aspects of bedbug biology are endearing. They don't build their own houses or care for their young, and their sexual practices are bizarre even by insect standards: Because the female bedbug has no genital opening, the male inseminates her by using his hardened, sharpened genitalia to punch a hole through her abdomen. With no elaborate courtship ritual, males in a frenzied pursuit of sexual congress often blunder into and puncture the bodies of other males, occasionally inflicting fatal wounds.

To top it off, almost every aspect of bedbug behavior is mediated by airborne odorants, almost all of which are, when detected, repulsive to humans.

What, if anything, is there to like about a bedbug? They certainly like us; we probably have no greater admirers in the insect world. They like the way we live, unlike most vertebrates, in permanent homes. (Bats and birds, which also build homes, are hosts to several of the bedbug's close relatives.) Bedbugs do not discriminate among humans on the basis of race, creed or socioeconomic status, and they're happy with almost any interior decorating style; they are as happy in a French provincial nook as they are in a contemporary cranny. The bugs' climate preferences are essentially an exact match to our own, and a small wingless creature couldn't ask for a better traveling companion — airlines have opened a world of possibilities for a species that can't get very far on its own six legs.

Perhaps the one good thing about bedbugs is that they provide a rare point of agreement that transcends race, religion, culture, nationality, tax bracket and party. It may be one of the few remaining universal truths — urban or rural, red state or blue, everyone agrees it would be great if bedbugs would disappear once more.

May Berenbaum, the head of the entomology department at the University of Illinois, is the author of "The Earwig's Tail: A Modern Bestiary of Multi-Legged Legends."