Maine Board of Pesticides Control

Miscellaneous Pesticides Articles
March 2014

(identified by Google alerts or submitted by individuals)
Is Connecticut’s Pesticide Ban on School Grounds Too Restrictive?

By PATRICK SKAHELL

Legislators are considering a change to a statewide ban of pesticide use on school grounds. It’s the first of several proposed challenges to a law that’s been in effect since 2010.

The 2010 law eliminated synthetic pesticide applications on the grounds of day cares and K-through-8 schools. Supporters say the ban was in response to concerns about children’s health and the environment. For years, towns like Cheshire and Branford have been pesticide-free, treating their municipal fields with only organic products.

But some school officials argue if groundskeepers can’t use certain EPA-approved synthetic fungicides, herbicides, and insecticides (which are banned under current state law), they can’t keep fields safe for play or control certain pests. And one pest has become a particular concern: grubs, which tear up fields and attract birds.

Now, legislators are considering an exception. Under a new proposal, certain EPA-registered grub control pesticides would be okay.
European chafer larvae, one type of grub found in Connecticut.
Credit Missouri State University

Fred Balsamo is head of the Connecticut Association of Athletic Directors, which represents sports programs at more than 350 schools. He said the grub exemption is a piecemeal fix for an already overreaching law (http://www.cnctoday.com/2014-EN/News/2014-09-16/Fred%20Balsamo%20Connecticut%20Association%20Athletic%20Directors-TMY.PDF).

"It makes sense to me," Balsamo said, "before any legislation is passed, that we form some kind of a task force. Do our homework. Do our research. And let's take this next couple of years to do a very in-depth study covering everything. Then, let's bring legislation forward that's based on an [educated] decision, rather than what people are feeling passionately. There's no question that this is a passionate issue for some people who feel that everything in the world should be organic. It's just not a realistic view."

Connecticut's Department of Energy and Environmental Protection has hired Dr. Chensheng (Alex) Lu (http://www.lash.harvard.edu/chensheng-lu/), an associate professor of biology at Harvard to do just that. According to DEEP, he'll review relevant literature on the use of EPA-registered pesticides at schools and present policy recommendations to the state in the coming weeks.

Jerry Silbert is not happy with the grub exception. He's worked extensively to ensure Cheshire's and Branford's fields are only treated with organics. Last week, he provided testimony to the state Environment Committee (http://www.cnctoday.com/2014-EN/News/2014-09-16/Jerry%20Silbert%20Cheshire%20Watershed%20Partnership%20TMY.PDF), saying the grub law would allow the use of acelepryn. The EPA says the the product has a very low level of toxicity, so much so that not a single word of warning is required on the label, but Silbert pointed out that the chemical is restricted in New York (http://www.dec.ny.gov/docs/materials_minerals_pdf/postprod1a.pdf).

Currently, New York is the only other state in the country to ban pesticide use on school grounds. Later this session, legislators are may raise a proposal that would expand the synthetic pesticide ban to high school fields (http://www.cnctoday.com/asp/gubbillstatus/gubbillstatus.asp?sbBillType=Bill&bill_num=46&which_year=2014&SUBMIT=x&SUBMIT1=x&SUBMIT2=Normal).
EPA, Sergeant's Pet Care and Wellmark International Reach Agreement to Cancel Potentially Harmful Insecticide Products

Release Date: 03/14/2014
Contact Information: Cathy Milbourn (news media only), milbourn.cathy@epa.gov, 202-564-7849, 202-564-4355

WASHINGTON - The U.S. Environmental Protection Agency has reached agreement with Sergeant's Pet Care Products, Inc. and Wellmark International to cancel flea and tick pet collars containing propoxur marketed under the trade names including Bansect, Sentry, Zodiac and Biospot.

"This action is another example of EPA's efforts to protect children from pesticide risks," said Jim Jones, assistant administrator of the EPA's Office of Chemical Safety and Pollution Prevention. This voluntary move will get to an expedient result that protects people's health."

This decision was reached between EPA and Sergeant's and Wellmark as a result of EPA's risk assessment showing risks to children from exposure to pet collars containing propoxur. Propoxur is an insecticide registered for use to control ticks, fleas and a variety of insects and is used in industrial, commercial and residential facilities. The agreement represents the solution to most quickly remove the pet collars from the market.

EPA completed the propoxur pet collar risk assessment in fall 2013 in response to a Natural Resources Defense Council petition to cancel the uses. EPA's risk assessment found, in some but not all use scenarios, unacceptable risks to children from exposure to pet collars containing propoxur. Propoxur is an insecticide registered for use to control ticks, fleas and a variety of insects and is used in industrial, commercial and residential facilities. The agreement represents the solution to most quickly remove the pet collars from the market.

EPA announced the voluntary cancellation on January 22, 2014. Under the cancellation agreement, manufacturers are allowed to produce the pet collars until April 1, 2015, and will not be allowed to distribute the products after April 1, 2016. EPA will continue to watch for incidents from the use of these collars and is prepared to take further action if necessary.

Flea and tick collars work by leaving a pesticide residue on dogs' and cats' fur, which can be transferred to people by hugging, petting or coming into contact with the pets. The major source of exposure to these chemicals is from absorption through the skin after directly touching the treated pet. Small children may ingest pesticide residues when they touch a treated cat or dog and subsequently put their hands in their mouth.

If you purchase a propoxur pet collar, read the label carefully and follow all directions on the label to protect your family from exposure. Do not allow children to play with the collar, and wash your hands thoroughly with soap and water after handling.

For more information about the voluntary cancellation:

http://www2.epa.gov/safepestcontrol/companies-agree-stop-selling-pet-collars-containing-pesticide-protect-children

Receive our News Releases Automatically by Email

Last updated on Wednesday, March 19, 2014
An analysis of 100 million US medical records published in *PLOS Computational Biology* concludes that autism rates are correlated (at the county level) with incidence of genital malformations in newborn males - and the authors say that may be due to harmful environmental factors such as pesticides. They even say that more regulations can fix it.

The authors found that after adjusting for gender, ethnic, socioeconomic and geopolitical factors, autism rates jumped by 283 percent for every one percent increase in frequency of malformations in a county. Intellectual disability rates increase 94 percent. Slight increases in autism and ID rates are also seen in wealthier and more urban counties.

The authors say the study confirms the dramatic effect of diagnostic standards. Incidence rates for Autism and ID on a per-person basis decrease by roughly 99 percent in states with stronger regulations on diagnosis of these disorders.

"Autism appears to be strongly correlated with rate of congenital malformations of the genitals in males across the country," said study author Andrey Rzhetsky, PhD, professor of genetic medicine and human genetics at the University of Chicago. "This gives an indicator of environmental load and the effect is surprisingly strong."

Although autism and intellectual disability have genetic components, environmental causes are thought to play a role. To identify potential environmental links, Rzhetsky and his team analyzed an insurance claims dataset that covered nearly one third of the US population. They used congenital malformations of the reproductive system in males as an indicator of parental exposure to toxins.

Male fetuses are particularly sensitive to toxins such as environmental lead, sex hormone analogs, medications and other synthetic molecules. Parental exposure to these toxins is thought explain a large portion of congenital reproductive malformations, such as micropenis, hypospadias (urethra on underside of the penis), undescended testicles and others.
Comparison of fixed effects (geographically varying factors) governing rate variation in ASD (A) and ID (B). The asterisks indicate the level of significance of individual regression coefficients. doi:10.1371/journal.pcbi.1003518

The researchers created a statistical baseline frequency of autism and ID across the country. They then looked at the actual rates of these disorders, county-by-county. Deviations from the baseline are interpreted as resulting from local causes. Factors such as age, ethnicity, socioeconomic groups and geopolitical statuses were analyzed and corrected for.

The team found that every one percent increase in malformations in a county was associated with a 283 percent increase in autism and 94 percent increase in ID in that same county. Almost all areas with higher rates of autism also had higher rates of ID, which the researchers believe corroborates the presence of environmental factors. In addition, they found that male children with autism are almost six times more likely to have congenital genital malformations. Female incidence was linked with increased malformation rates, but weakly so. A county-by-county map of autism and ID incidence above or below the predicted baseline for the entire US is included in the study.

Non-reproductive congenital malformations and viral infections in males were also associated with double digit increases in autism and ID rates. Additionally, income appeared to have a weak effect—every additional $1,000 of income above county average was correlated with around a three percent increase in autism and ID rates. An increased percentage of urban population in a county also showed a weak increase in rates.

The most striking negative effect was state regulation. State-mandated diagnosis of autism by a clinician for consideration in special education was linked with around a whopping 99 percent decrease in the rate of incidence for autism and ID. Certain ethnic backgrounds, such as pacific islanders had significantly lower risk for both diseases.

While the effect of vaccines was not analyzed as part of this study, Rzhetsky notes that the geographic clustering of autism and ID rates is evidence that if vaccines have a role, it’s a very weak one as vaccinations are given uniformly across the US.

Rzhetsky acknowledges there are potential confounders to the study, for example ease of access to data could differ between counties or uneven genetic distribution, beyond the factors they controlled for, could have an effect. The team anticipates future studies could leverage data from the Environmental Protection Agency and other sources to identify links between...
specific environmental causes and increased rates of autism and ID.

"We interpret the results of this study as a strong environmental signal," Rzhetsky said. "For future genetic studies we may have to take into account where data were collected, because it's possible that you can get two identical kids in two different counties and one would have autism and the other would not."


Source URL: http://www.science20.com/news_articles/autism_correlated_genital_malformation_boys_and_pesticides-131705
British scientists have developed genetically modified potatoes that are resistant to the vegetable's biggest threat - blight.

A three-year trial has shown that these potatoes can thrive despite being exposed to late onset blight.

That disease has plagued farmers for generations and it triggered the Irish potato famine in the 1840s.

EU approval is needed before commercial cultivation of this GM crop can take place.

The research is published in the journal Philosophical Transactions of the Royal Society B.

Potatoes are particularly vulnerable to late blight, caused by a fungus-like organism that loves the damp and humid conditions that often occur during the growing season in Europe.

The speed with which this infection takes hold and the devastating impacts on the crop make it the number one threat to six million tonnes of potatoes produced in the UK each year.

Farmers have to be continuously on their guard and need to spray up to 15 times a season to protect against the disease.

As part of an EU-wide investigation into the potential for biotechnology to protect crops, scientists at the John Innes Centre and the Sainsbury Laboratory began a trial with blight-resistant potatoes in 2010.

The researchers added a gene to Desiree potatoes, from a wild South American relative, that helps the plant turn on its natural defences to fight off blight.

The scientists involved say that the use of techniques to add extra genes was crucial in developing a plant resistant to the blight.

"Breeding from wild relatives is laborious and slow, and by the time a gene is successfully introduced into a cultivated variety the late blight pathogen may already have evolved the ability to overcome it," said Prof Jonathan Jones, of the Sainsbury Laboratory.
the lead author of the research paper.

"And I think it is better to control disease with genetics than with chemistry."

In 2012, the third year of the trial, all the non-GM potatoes became infected with late blight by August while the modified vegetables remained fully resistant to the end of the experiment.

There was also a difference in yield, with the GM variety producing double the amount of tubers.

The scientists say that since the potatoes are grown from tubers rather than seeds, they are sterile and the issue of GM pollen escaping into the wild does not arise.

One area the scientists cannot comment on is the taste, as they were barred from eating the GM variety. However, they do not believe there is any mechanism by which the new genes can impact the flavour.

As late blight is a highly adaptive organism, the scientists at the Sainsbury Laboratory are eager to find more resistance genes and add them into the plant in a "stack".

This would make the chances of late blight overwhelming these potatoes very low. However, it might make the GM variety more expensive to plant.

"The balance will be in favour of the farmer," said Prof Jones.

"Yes, they may pay more for the seed but they will spend an awful lot less on fungicide."

The scientists believe the big challenge will be in getting regulatory approval for the new variety in Europe. The researchers have licensed the technology to an American company, Simplot, which wants to grow them in the US.

"I think it is unfortunate that American farmers are going to benefit from the fruits of European taxpayers' funded work way before Europeans," said Prof Jones.

"This kind of product will likely be on the US market within a couple of years and if we are lucky within eight to 10 years in Europe."

Critics of GM crops said that no matter how big the scale of the environmental benefits, they believe that consumers will not be interested.

"Is anyone really going to grow, sell or buy genetically modified potatoes?" said Liz O'Neil, director of GM Freeze.

"The law says that they will have to be labelled GM. Experience shows that the UK doesn't want GM in its shopping basket, and British farmers are far too smart to grow something they can't sell."

**Regulatory hurdles**

Other researchers welcomed the development but were equally negative about the chances of these new potatoes being grown in the UK.

"Late blight of potatoes is a difficult disease to control, and using genes from distant relatives is a valuable tool," said Prof Chris Pollock, of Aberystwyth University.

"Unfortunately, the problems in the current European regulatory process, which is expensive and extremely slow, means that this advance by UK scientists is far more likely to help farmers in other countries."

Only 600 of the GM potato plants have been grown, but the scientists have had to spend £40,000 to protect them over the three years of the trial.
Monkey’s brain moves sedated avatar

A monkey’s brain has been used to control the movements of a sedated monkey, scientists report, raising hope for advances in overcoming paralysis.

Chicago goes to war with Asian carp

Early night cost Higgs physics glory
Groups Sue EPA to Force It to Move on Pesticide Disclosures

Reuters

Mar 5, 2014

By Carey Gillam

(Reuters) - Three environmental and public health groups sued the Environmental Protection Agency on Wednesday, seeking to press it to move forward with rules that would require public disclosure of certain pesticide ingredients.

The Center for Environmental Health, Beyond Pesticides, and Physicians for Social Responsibility, all non-profit advocacy groups, filed the lawsuit in U.S. District Court in San Francisco.

The groups claimed there has been an "unreasonable delay" on the EPA's part in finalizing rules to require chemical manufacturers to disclose hazardous inert ingredients in their pesticide products.

The groups said there are more than 350 inert pesticide ingredients that can be just as hazardous as active ingredients that are labeled and can comprise up to 99 percent of a pesticide's formulation. Of the common inert ingredients, many are classified as carcinogenic, possibly carcinogenic or potentially toxic, the lawsuit said.

More than 20 public health groups and a coalition of state attorneys general petitioned EPA in 2006 to take action on this issue. EPA said in 2009 that it was starting the rule-making process regarding disclosures of such ingredients.

But the lawsuit claimed that since 2009 EPA has taken no further action to adopt any new rules on disclosure of inert ingredients.

"EPA's unreasonable delay continues to leave the public uninformed and unable to protect themselves from the hazardous chemicals they are being exposed to through the use of pesticide products," the lawsuit said.

EPA officials did not immediately respond to requests for comment.
In a 2009 letter to the groups, EPA said that it intended to "effect a sea change in how inert ingredient information is made available to the public." But it also said it was not committing to any particular outcome.

(Reporting by Carey Gillam in Kansas City; Editing by Jonathan Oatis)
A chemical used to control insects and non-native pest birds is likely to blame for the deaths of hundreds of wild birds near Dubbo in the state's central west, the NSW Environment Protection Authority said.

As many as 700 birds, mostly little corellas, galahs and sulphur-crested cockatoos, have been found dead over the past fortnight in a two-kilometre radius of Troy Reserve on the Talbragar River, said Ann Mara, chairwoman of the WIRES wildlife rescue group.

The EPA said testing of samples from the dead birds indicates fenthion, a pesticide commonly used to kill insects, spiders and birds such as starlings, is the most likely cause of the deaths.

"At this point, we do not have evidence as to how the birds came into contact with the insecticide but we are continuing to investigate," Gary Davey, director of the north branch of the EPA said.

"Water samples from the Macquarie River have also been tested and preliminary results indicate that no pesticides have been detected," Mr Davey said.

The Australian Pesticides and Veterinary Medicines Authority last October extended for a year a suspension on the use of fenthion for home gardens and a range of agricultural products, such as eggplants and pears.

Volunteers from as far away as Sydney helped gather the carcasses to prevent raptors, such as whistling kites and tawny frogmouths, feeding on the poisoned carrion. About 30 sick birds, including two kites, have been so far been rescued, Ms Mara said.

"We've got fantastically beautiful bird populations out here," she said. "This is a significant loss.

Locals found the first deaths on February 27 but were initially prevented from collecting the carcasses out of concern about possible bird flu, Ms Mara said. Five volunteers began the arduous clean-up on March 1 in heavy rain, rescuing two dozen sick birds and about 200 dead birds on that day alone.

Debbie Archer, manager of environmental control at Dubbo City Council, said it was a relief to find the Macquarie River was not contaminated.

"The concern now is for the higher-order birds, such as eagles," Ms Archer said, with snakes also at risk if they feed on poisoned birds.

HARTFORD (AP) — Connecticut state lawmakers are considering whether to expand restrictions on pesticide use to include more public places like parks, playgrounds and municipal greens.

Legislators say they drafted a bill to shield children from toxic lawn pesticides. The General Assembly’s Environment Committee has...
scheduled a public hearing on the proposal and other bills for 1 pm Monday at the Legislative Office Building.

The bill would expand current restrictions on using pesticides at schools to include all high schools. It also would restrict their use at parks, playgrounds, athletic fields and town greens.

Members of a state association of public parks and recreation officials oppose the bill. They say it has little basis in science and would lead to more injuries on sports fields because of turf damage from insects.

More stories like this: pesticides, pesticide restrictions
You must register or login to post a comment.