

# PESTICIDE REPORTS

Division of Agricultural Sciences and Natural Resources • Oklahoma State University

<http://pested.okstate.edu>



## December, 2013

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### NEWSLETTER RENEWAL

It is time to renew your subscription to the *Pesticide Reports* newsletter. To do so, complete the instructions at the end of this edition. Either e-mail or mail your renewal to us. If you do not respond we will have to drop you from the mailing list.

**OSU Extension personnel do not have to renew.**

### LAST OSU PSEP TEST HELP SESSIONS FOR 2013 IN DECEMBER

The OSU Pesticide Safety Education Program will conduct the last test help sessions for 2013 in December. The Test Help will be held at the Oklahoma County Extension Center on December 17<sup>th</sup>.

This testing session will focus on information covered in the core/service tech test. OSU PSEP will answer any questions over other category tests during this session.

Cost of registration is \$30 if received by December 10<sup>th</sup>. Registration will increase to \$50 after December 10<sup>th</sup>.

**ODAFF Testing fees are not included in the registration fee and must be paid separately.**

Register online at the Pesticide Safety Education Program (PSEP) website at <http://pested.okstate.edu/html/practical.htm>. Registration forms can also be downloaded from the website.

Registration will start at 8:45 and the program will run from 9:00 am to 12:30 pm. Testing will begin at 1:30 pm.

2014 Test Help Dates will be posted on the PSEP website in late December.

**NO CEU's will be given for this program!**

## UNWANTED PESTICIDE DISPOSAL RESULTS

The 2013 Unwanted Pesticide Disposal Program held collections this past November in Wilburton and Kingfisher. The program collected 6,965 pounds in Wilburton on November 19. The Kingfisher location collected 50,745 pounds on November 21. Big thanks to the City of Wilburton Recycling Center, and Kingfisher County Fairgrounds for hosting the sites.

Wilburton	6,965 pounds
Kingfisher	50,745 pounds

2014 dates and locations have not been determined at this time. Please check the website below for future dates and locations for 2014.

<http://pested.okstate.edu/html/unwanted.html>

## EPA SEEKS PUBLIC INPUT ON NEWLY DESIGNED GRAPHIC FOR BUG REPELLENT LABELS

The U.S. Environmental Protection Agency (EPA) has released a Federal Register Notice seeking public input on a new insect repellent graphic for skin-applied insect repellent product labels. The graphic, which may be applied voluntarily by manufacturers, will provide consumers with important health information including the estimated number of hours a product will repel potentially harmful insects like mosquitoes and ticks when used as directed.

"EPA is working to create a system that does for bug repellents what SPF labeling did for sunscreens," said Jim Jones, assistant administrator of the Office of Chemical Safety and Pollution Prevention. "By providing vital health information to consumers, this new graphic will help parents, hikers and the general public better protect themselves from serious health problems caused by mosquito and tick bites."

Current labeling of skin-applied insect repellent products does not allow consumers to easily identify the insects repelled by a product and the amount of time the product remains effective. Over the past four years, EPA has held focus groups and worked with manufacturers and others to create the new graphic, which will display consumer information in a more prominent and standardized format. The graphic will only be placed on insect repellent products that are applied directly to the skin.

Effective insect repellents can protect against serious mosquito and tick-borne diseases. In the United States, [mosquitoes can transmit diseases](#) like St. Louis encephalitis and West Nile virus. Ticks can transmit serious diseases like Lyme disease, Rocky Mountain spotted fever and ehrlichiosis. Using the right insect repellent and

taking [other preventive actions](#) can discourage bites from ticks, mosquitoes and other biting insects.

Companies will be able to request approval to use this graphic through the Pesticide Registration Improvement Act (PRIA) registration process.

View the FR Notice, graphic and additional information at <http://www.epa.gov/pesticides/insect/repellency-awareness.html>. (EPA November 6, 2013)  
[http://www.epa.gov/oppfead1/cb/csb\\_page/updates/2013/bug-repellent-label.html](http://www.epa.gov/oppfead1/cb/csb_page/updates/2013/bug-repellent-label.html)

## **US EPA TO UPDATE FARMWORKER PROTECTION FROM PESTICIDES**

The US EPA proposes to update standards intended to protect farmworkers from dangerous pesticides. The Agency submitted a proposed rule on October 24th to the Office of Management and Budget, which must review and approve the regulation before it is made available to the public for comment. The EPA says that it hopes to publish the draft rule in February 2014.

Although details on the proposal are limited, the rule would revise the EPA's Worker Protection Standard (WPS) - the primary set of federal regulations aimed at protecting farmworkers from pesticides. The WPS requires that farmworkers receive basic pesticide safety training, restricts worker access to treated fields, mandates that protective equipment is used and calls for medical assistance to be provided in case of emergency.

The EPA says that it is proposing to make adjustments to improve and clarify current requirements and facilitate enforcement. Other changes under consideration intend to bring hazard communication requirements more in line with other federal agencies and to make improvements to pesticide safety training.

The regulations have not been updated in nearly 20 years and critics argue that they fall far short of providing adequate protection to farmworkers. A report by non-profit advocacy group Farmworker Justice in July asserted that the EPA was not doing enough to protect farmworkers from dangerous pesticides (*Agrow* No 669, p 16). A report issued in 2000 by the Government Accountability Office, an independent US government watchdog, found the standard wanting and criticised the EPA for failing to assess the effectiveness of the regulations.

According to the Agency, the potential need for change to the WPS arose from discussions with key stakeholders as early as 1996.

(Pesticide & Chemical Policy/AGROW, November 4, 2013)

## **PUBLIC HOUSING AUTHORITY SUED OVER BED BUG CLAIMS**

Waukegan, Ill.'s public housing agency faces a federal class-action lawsuit alleging that officials took ineffective action against a burgeoning bedbug infestation in a housing project, the Chicago Tribune reports.

The suit filed by three residents of Harry Poe Manor claims the 155-unit tower still harbors the bloodsucking insects whose bites, often delivered while people sleep, can irritate and inflame skin. The suit filed Friday in Chicago federal court seeks class-action status to represent the building's current residents and those who have lived there during the alleged infestation.

The suit seeks an injunction that would force the Waukegan Housing Authority to disclose the extent of any infestation and make a new plan to kill the bugs. The litigation also asks for monetary damages for, among other things, pain and suffering. (PCT Online, December 2, 2013)  
<http://www.pctonline.com/Waukegan-housing-authority-sued-bed-bugs.aspx>

## FUNGUS MAY OFFER NATURAL PALMER AMARANTH CONTROL

A naturally occurring fungus may prove useful in the fight against [Palmer amaranth](#), an aggressive southern weed that can grow at the rate of two inches a day and out-compete corn, cotton, soybean and other crops for resources, potentially reducing their yields, claims USDA scientists in a recent article.

To make matters worse, some biotypes of the weed have become resistant to glyphosate herbicides. As a possible alternative, USDA scientists in Stoneville, MS, are exploring ways to formulate *Myrothecium verrucaria*, a fungus which attacks Palmer amaranth's leaf and stem tissues, causing wilt, necrotic lesions, loss of chlorophyll and other disease symptoms that can kill young plants and weaken older ones.

Studies by Robert Hoagland, Doug Boyette and others at the Jamie Whitten Delta States Research Center operated by USDA's Agricultural Research Service (ARS) in Stoneville, indicate *Myrothecium* can wreak similar havoc on biotypes of Palmer amaranth that resist glyphosate and other herbicides such as triazines.

To test *Myrothecium*'s infectivity, the researchers used a filamentous growth stage known as mycelium and sprayed a special formulation of it onto two batches of four-week-old Palmer amaranth seedlings: those with [glyphosate resistance](#) and those without. They repeated the same procedure with six-week-old plants. All groups were visually checked for symptoms over the experiment's seven-day (168-hour) period and then weighed for reductions in shoot growth.

Seedlings were most susceptible, with all plants exposed to a full-strength application of the fungus showing disease symptoms. By 48 to 72 hours, nearly 100% had died. In six-week-old plants, symptoms progressed more slowly, but there was no significant difference in injury between glyphosate-resistant and glyphosate-susceptible plants. Both

groups showed disease symptoms, most notably chlorosis, some necrosis, and stunted growth.

The findings, published in *Allelopathy Journal*, mark the first report of *Myrothecium*'s bioherbicidal activity against a weed species with glyphosate resistance.

(CropLife Online, November 18, 2013)

<http://www.croplife.com/crop-inputs/fungus-may-offer-natural-palmer-amaranth-control/>

## RESEARCHERS EXAMINE EFFECTIVENESS OF DIY BED BUG PRODUCTS

Rutgers' Changlu Wang and his research team have been studying the effectiveness of products such as mothballs and rubbing alcohol, and Wang reported on these findings at this month's Entomology 2013, the Washington Post reports.

Spraying a group of bed bugs with rubbing alcohol left about half alive four days later, Wang reported. His research team at Rutgers University also found that mothballs failed to wipe out bed bugs after 17 days in a plastic bag full of infested clothes. Eggs and immature bedbugs survived the mothball treatment well, and only 44 to 60 percent of the adult males died.

The article also noted that a commercial blend of essential oils turned out to have a major drawback under likely real-world conditions. In a lab where bugs had no chance to bite anybody, treatment with the product Bed Bug Fix had killed 92 percent of bugs by the end of two weeks. But when researchers sprayed bugs and then allowed them to feed, as they might in a home, the insects survived. Just why isn't clear, Wang says. Ultrasonic bedbug-repelling devices are popular, but they don't work, Wang said. In a survey of 24 places infested with bedbugs, seven had an ultrasonic repeller. (PCT Online November 26, 2013)

<http://www.pctonline.com/bed-bugs-Rutgers-DIY-research.aspx>

## **US EPA ORDERED TO RESPOND TO PESTICIDE DRIFT PETITION**

A federal court has ordered the US EPA to formally respond to an NGO petition that calls on the Agency to issue new safety standards to protect children from pesticide drift. The EPA has agreed to respond to the petition by March 31st 2014, unless its work is delayed by another federal government shutdown.

The court order was issued in response to a lawsuit filed in July by a coalition of farmworker, public health and environmental groups. The coalition alleged that the EPA had failed to respond to its October 2009 petition that asked the Agency to conduct pesticide-specific drift assessments for all pesticides with the potential to drift and to impose measures necessary to protect children from harmful drift exposures (Agrow No 578, p 17). The EPA posted the petition for public comment in November 2009, but has yet to respond to the comments or to the petition.

The petition also urges the EPA to immediately impose interim no-spray buffer zones for drift-prone pesticides including organophosphate insecticides and N-methyl carbamate insecticides, around schools, rural homes, parks, daycare facilities and other areas where children congregate. The petition contends that the EPA has violated the 1996 Food Quality Protection Act (FQPA) by failing to protect children from pesticide drift.

The statute required the EPA to set standards by 2006 to protect children from aggregate exposures to pesticides. Although the EPA has taken several actions to further protect children from pesticides under the FQPA - notably banning use of some chemicals in the home and on lawns - the Agency has yet to impose rules to protect children from

drift. (Pesticide & Chemical Policy/AGROW, November 4, 2013)

## **OREGON RESTRICTS SOME NEONICOTINOID PESTICIDE USES AFTER BEE KILLS**

The Oregon Department of Agriculture (ODA) has restricted two pesticide products linked to massive bee die offs experienced in Oregon earlier this year. Both pesticides are neonicotinoid chemicals that are extremely harmful to bees. Though these restrictions are an important step in protecting bee health, the new rules will still not limit all of the uses of these chemicals that can harm pollinators. Photo by Motoya Nakamura/The Oregonian

ODA placed restrictions on dinotefuran and imidacloprid, banning their use on linden trees, basswood and other trees of the *Tilia* genus. Pesticide products that contain these active ingredients are now required to have Oregon-specific labels. This is only the second time in the past ten years that ODA has regulated pesticides more strictly than federal standards. These new restriction comes after ODA adopted a temporary rule in June that limited the use of 18 pesticide products that contained diontefuran. That rule was set to expire next month.

States and local jurisdictions have authority under the nation's pesticide registration law, the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), to adopt more stringent pesticide use restrictions than the federal government. However, after the U.S. Congress rejected proposals to preempt local authority and the Supreme Court upheld the rights of localities in a 1991 decision, 43 states adopted some form of preemption of local authority. Seven states have clear authority without restriction, including the state of Maryland, where in July the City of Takoma Park adopted a ban on cosmetic lawn pesticides identified by the City Council as an unnecessary hazard to community residents and the environment. Local jurisdictions



in 19 of the 43 states with preemption can appeal to their state government to adopt local restrictions; five of these have a clear process. Beyond Pesticides advocates that states and localities must have the authority, as in the case of protecting bees and beneficial organisms, to restrict pesticides when it is determined that federal restrictions do not meet state and local concerns about the health and environmental protections in place.

Dinotefuran and imidacloprid are both neonicotinoid pesticides that are highly toxic to bees. Neonicotinoids can be broadly applied as a spray, soil drench, or seed treatment, however, the ability of these chemicals to translocate through a plant as it grows has led to the creation of a large market within chemical-intensive landscaping and agriculture. Once these systemic pesticides are taken up by a plant's vascular system, they are expressed through pollen, nectar and guttation droplets from which pollinators, such as bees, then forage and drink. Neonicotinoids kill sucking and chewing insects by disrupting their nervous systems.

This new regulation is a response to an incident earlier this year where an estimated 50,000 bumblebees, likely representing over 300 colonies, were found dead or dying in Wilsonville. According to the Xerces Society, this was the largest known incident of bumblebee deaths ever recorded in the country. After a preliminary investigation, ODA confirmed that the massive bee die-off was caused by the use of the insecticide dinotefuran. Then, it was reported by The Oregonian that hundreds of bees were found dead after the same pesticide was used in the neighboring town of Hillsboro. Dan Hilburn, director of plant programs at the Oregon Department of Agriculture (ODA), told Oregon Live that he had "never encountered anything quite like it in 30 years in the business."

Regulators initially responded to this incident by prohibiting the use of dinotefuran on any plant.

According to the temporary rule, "This includes, but is not limited to, applications on landscape trees and shrubs, nursery and greenhouse plants, turfgrass, forests and agricultural crops." Products containing dinotefuran were taken off shelves and making an application of dinotefuran would result in the revocation of an applicator's license. Before the new restrictions, these temporary rules were set to expire in December.

Though these new restrictions are an important step for state regulators trying to protect bees and other pollinators, these new regulations are extremely limited in their scope. Neonicotinoid pesticides used on plants that are attractive to that are not listed in the new restrictions can still be harmful to bees. These new regulations also do not regulate all forms of pesticide applications even to trees of the *Tilia* genus. These trees may have been planted using neonicotinoid treated seeds. A pilot study, co-authored by the Pesticide Research Institute, found that 7 of 13 samples of garden plants purchased at top retailers in Washington DC, the San Francisco Bay Area and Minneapolis contain neurotoxic pesticides known as neonicotinoids that studies show harm or kill bees and other pollinators.

Due to the absence of strong regulatory safeguards for pollinators, it is important for the public to become engaged in pollinator protection. Join Beyond Pesticides' BEE Protective campaign and support a shift away from the use of these toxic chemicals by encouraging organic methods and sustainable land management practices in your home, campus, or community, and in food production.

(*Beyond Pesticides*, November 25, 2013)

<http://www.beyondpesticides.org/dailynewsblog/?p=12281>

## In-State CEU Meetings

### **Date: December 3-5, 2013**

Title: 2013 Oklahoma Ag Expo

Location: Reed Center Midwest City OK

Contact: Tammy Ford-Miller (580) 233-9516

Course #: OK-13-085

[www.oklahomaag.com](http://www.oklahomaag.com)

CEU's:	Category(s):
1	Aerial
7	1A
1	7A
4	7c
10	10

### **Date: December 3-4, 2013**

Title: 68<sup>th</sup> Annual Turfgrass Conference

Location: OSU Wes Watkins Center Stillwater OK

Contact: Dr. Justin Moss (405) 744-5729

Course #: OK-13-

<http://turf.okstate.edu>

CEU's:	Category(s):
10	3A
10	10

### **Date: December 10-11, 2013**

Title: OSU Winter Crop School

Location: OSU Wes Watkins Center Stillwater OK

Contact: Dr. Jeff Edwards (405) 744-9617

Course #: OK-13-

[www.wheat.okstate.edu](http://www.wheat.okstate.edu)

CEU's:	Category(s):
3	1A
3	10

### **Date: February 11, 2014**

Title: Lawn Care Management

Location: Stephens County Fairgrounds

Contact: Max Gallaway Stephens County (580) 255-0510 or Marty New Comanche County (580) 355-1176

Course #: OK-13-

<http://turf.okstate.edu>

CEU's:	Category(s):
1	3A
1	7A
2	10

## ODAFF Approved Online CEU Course Links

Technical Learning College

<http://www.abctlc.com/>

Green Applicator Training

<http://www.greenapplicator.com/training.asp>

All Star Pro Training

[www.allstarce.com](http://www.allstarce.com)

Wood Destroying Organism Inspection Course

[www.nachi.org/wdocourse.htm](http://www.nachi.org/wdocourse.htm)

CTN Educational Services Inc

[http://www.ctnedu.com/oklahoma\\_applicator.html](http://www.ctnedu.com/oklahoma_applicator.html)

Pest Network

<http://www.pestnetwork.com/>

Univar USA

<http://www.pestweb.com/>

Southwest Farm Press Spray Drift Mgmt

<http://www.pentonag.com/nationalsdm>

SW Farm Press Weed Resistance Mgmt in Cotton

<http://www.pentonag.com/CottonWRM>

Western Farm Press ABC's of MRLs

<http://www.pentonag.com/mrl>

Western Farm Press Biopesticides Effective Use in Pest Management Programs

<http://www.pentonag.com/biopesticides>

For more information and an updated list of CEU meetings, click on this link:  
<http://www.state.ok.us/~okag/cps-ceuhome.htm>

## ODAFF Test Information

Pesticide applicator test sessions dates and locations for December 2013/January 2014 are as follows:

December		January	
2	Atoka	6	Atoka
3	Goodwell	8	Lawton
5	Tulsa	9	Tulsa
9	OKC	13	OKC
11	Lawton	23	Tulsa
12	Enid	27	OKC
19	Tulsa		
30	OKC		

Altus: Western OK State College  
2801 N Main, Room A23

Enid: Garfield County Extension Office,  
316 E. Oxford.

Goodwell: Okla. Panhandle Research &  
Extension Center, Rt. 1 Box 86M

Hobart: Kiowa County Extension Center  
Courthouse Annex, 302 N. Lincoln

Lawton: Great Plains Coliseum, Annex Rm.  
920 S. Sheridan Road.

OKC: Oklahoma County Extension Office,  
930 N. Portland.

Tulsa: NE Campus of Tulsa Community  
College, (Apache & Harvard)  
Large Auditorium

McAlester: Kiamichi Tech Center on  
Highway 270 W of HWY 69

ATOKA KIAMICHI TECH CENTER 1301  
W Liberty Rd, Seminar Center

Ardmore Carter County Extension Center

## HAPPY HOLIDAYS



**Pesticide Safety  
Education Program**



**RENEWAL FORM TO REMAIN ON OR BE ADDED TO  
*PESTICIDE REPORT's* MAILING LIST**

**PLEASE PRINT - THANK YOU!**

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**Company/Business Name**\_\_\_\_\_

**Address**\_\_\_\_\_

**City**\_\_\_\_\_ **State**\_\_\_\_\_ **Zip Code**\_\_\_\_\_

**E-Mail**\_\_\_\_\_

**Please send to:** Charles Luper or Kevin Shelton  
Pesticide Safety Education Program  
127 NRC  
Oklahoma State University  
Stillwater, OK 74078-3033

or E-mail us at: [Sharon.hillock@okstate.edu](mailto:Sharon.hillock@okstate.edu). Please type Pesticide Report in the subject box.

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