

# PESTICIDE REPORTS

Division of Agricultural Sciences and Natural Resources • Oklahoma State University  
<http://pested.okstate.edu>



## November, 2017

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### NOVEMBER TEST HELP SESSIONS

Don't miss the next test help sessions OSU Pesticide Safety Education Program will conduct for 2017 in November. Mark your calendars the workshops will be held November 1<sup>st</sup> in Oklahoma City and November 9<sup>th</sup> in Tulsa.

The Tulsa session will be at the Tulsa County Extension Office at 4116 E. 15<sup>th</sup>. The Oklahoma City Test help session will at the Oklahoma County Extension Office 2500 NE 63rd.

The help sessions will focus on information covered in the core and service tech tests. OSU PSEP will answer any questions over other category tests during this session.

Applicators should acquire and study the manuals before coming to the help session for optimum success. Study manuals can be purchased by using the manual order form available at our website <http://pested.okstate.edu/pdf/order.pdf> or by calling University Mailing at 405-744-5385.

**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 8:30 and the program will run from 8:45 am to 12:30 pm at both locations. Testing will begin at 1:30 pm at both locations.

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

Reminder that Service Technicians must recertify before December 31, 2017 to stay certified for the next cycle that starts January 1, 2018.

The last Test Help Workshops for 2017 will be conducted in December. Please go to the website below for the rest of the 2017 dates.

<http://pested.okstate.edu/html/practical.htm>

## **EPA AND STATES' COLLECTIVE EFFORTS LEAD TO REGULATORY ACTION ON DICAMBA**

EPA has reached an agreement with Monsanto, BASF and DuPont on measures to further minimize the potential for drift to damage neighboring crops from the use of dicamba formulations used to control weeds in genetically modified cotton and soybeans. New requirements for the use of dicamba "over the top" (application to growing plants) will allow farmers to make informed choices for seed purchases for the 2018 growing season.

"Today's actions are the result of intensive, collaborative efforts, working side by side with the states and university scientists from across the nation who have first-hand knowledge of the problem and workable solutions," said **EPA Administrator Scott Pruitt**. "Our collective efforts with our state partners ensure we are relying on the best, on-the-ground, information."

In a series of discussions, EPA worked cooperatively with states, land-grant universities, and the pesticide manufacturers to examine the

underlying causes of recent crop damage in the farm belt and southeast. EPA carefully reviewed the available information and developed tangible changes to be implemented during the 2018 growing season. This is an example of cooperative federalism that leads to workable national-level solutions.

Manufacturers have voluntarily agreed to label changes that impose additional requirements for "over the top" use of these products next year including:

- Classifying products as "restricted use," permitting only certified applicators with special training, and those under their supervision, to apply them; dicamba-specific training for all certified applicators to reinforce proper use;
- Requiring farmers to maintain specific records regarding the use of these products to improve compliance with label restrictions;
- Limiting applications to when maximum wind speeds are below 10 mph (from 15 mph) to reduce potential spray drift;
- Reducing the times during the day when applications can occur;
- Including tank clean-out language to prevent cross contamination; and
- Enhancing susceptible crop language and record keeping with sensitive crop registries to increase awareness of risk to especially sensitive crops nearby.

Manufacturers have agreed to a process to get the revised labels into the hands of farmers in time for the 2018 use season. EPA will monitor the success of these changes to help inform our decision whether to allow the continued "over the top" use of dicamba beyond the 2018 growing season. When EPA registered these products, it set the registrations to expire in 2 years to allow EPA to change the registration, if necessary.

For more information:

<https://www.epa.gov/ingredients-used-pesticide-products/registration-dicamba-use-genetically-engineered-crops>.

(EPA, October 13, 2017)

<https://www.epa.gov/pesticides/epa-and-states-collective-efforts-lead-regulatory-action-dicamba>

## **MONSANTO SUES ARKANSAS REGULATOR OVER DICAMBA BAN**

Monsanto on Friday said it filed a complaint in Pulaski County Circuit Court in response to the Arkansas Plant Board’s “rejection of our petition to halt Arkansas’s unwarranted ban of XtendiMax” for the 2018 growing season.

Monsanto is challenging the restrictions as Arkansas edges closer to adopting a temporary ban on dicamba herbicides for next year. The Plant Board last month gave initial approval to regulations that prohibit the use of dicamba from April 16 through Oct. 31, 2018.

Scott Partridge, Vice President of Global Strategy with Monsanto, made the following statement:

“This is about growers. As a company, we are committed to putting the best tools in the hands of growers to control weeds. Growers in 33 other states are having an outstanding experience with Xtendimax. Growers in Arkansas deserve the same opportunity.

The Plant Board’s action disadvantages Arkansas farmers. Our complaint is the next step in a process that began with our petition to the Plant Board, and it seeks to make our low-volatility formulation available to Arkansas growers for the 2018 season. The Plant Board overlooked extensive volatility data provided to it – including data EPA used in its registration decision.

Our focus remains on growers in Arkansas and elsewhere – and making sure they have access to the best tools possible.”

(CropLife, October 24, 2017)

<http://www.croplife.com/crop-inputs/herbicides/monsanto-sues-arkansas-regulator-dicamba-ban/>

## **BED BUGS ATTRACTED TO DIRTY LAUNDRY, RESEARCH SHOWS**

A [new study](#) from the University of Sheffield shows that when bed bugs can’t find a human host, they will seek out items — specifically, soiled clothing — that contain human odors.

The study shows that (1) soiled clothing is significantly more attractive than clean clothing to active bed bugs moving within a bedroom sized arena and (2) elevation of CO2 to a level that simulates human occupancy in the same arena appears to initiate search behavior rather than direct it. Our results show, for the first time, how leaving worn clothing exposed in sleeping areas when travelling can be exploited by bed bugs to facilitate passive dispersal.

“Our results show, for the first time, how leaving worn clothing exposed in sleeping areas when traveling can be exploited by bedbugs to facilitate passive dispersal,” the study’s authors conclude.

The study was published late last week in the [journal Scientific Reports](#). (PCT Online, October 6, 2017) <http://www.pctonline.com/article/bed-bugs-attracted-to-dirty-laundry/>

## **US EPA HIT WITH ANOTHER SPECIES LAWSUIT**

US environmentalists have filed suit to vacate the registrations of 95 neonicotinoid insecticide products, alleging that the EPA had failed to assess their impacts on endangered species.

The complaint, filed on October 3rd by the Natural Resources Defense Council (NRDC) in the US District Court for the District of Columbia, targets products that contain acetamiprid, dinotefuran or imidacloprid.

The NRDC says that the EPA has not completed consultations with the federal wildlife agencies required by the Endangered Species Act (ESA). The statute orders the EPA to consult with either the US Fish and Wildlife Service or the National Marine Fisheries Service if the Agency determines that a pesticide "may affect" a listed species.

The EPA and the wildlife agencies are then supposed to work together to determine if a pesticide under registration review would put a listed species in jeopardy and develop mitigation measures or pesticide use restrictions if needed.

The lawsuit alleges that the EPA has reached the "may affect" decision for the neonicotinoid products but has failed to engage in consultation with the wildlife agencies. "Bees, butterflies, birds and insects across the nation are being harmed by neonic pesticides that the EPA allowed on the market unlawfully," the NRDC alleges in the 27-page complaint.

The lawsuit asks the Court to vacate the registrations until the EPA has completed the ESA consultations.

The Agency has argued in prior cases that it lacks the resources to complete consultations for all active ingredients and is focusing its efforts on older, potentially more harmful pesticides. A federal court in June showed sympathy for the EPA, opting to leave the registration for DuPont's (part of DowDuPont) insecticide, cyantraniliprole (trade-

marked as Cyazypyr), in place while the Agency completed its ESA assessment and consultation.

(Pesticide & Chemical Policy/AGROW, October 5, 2017)

## **MONSANTO 'DICAMBA SUMMIT' REPORTEDLY CAUSING CONSTERNATION IN AG SCIENCE COMMUNITY**

According to the St. Louis Business Journal, some scientists — including widely respected University of Missouri professor Kevin Bradley — reportedly are declining to attend a summit to be held this week by Monsanto Co. to present information on its dicamba herbicide.

Monsanto faces complaints from farmers alleging dicamba herbicides drifted to neighboring fields and damaged crops. The company plans to present data at the summit in St. Louis that it says will show user error was behind the damage, Reuters reports.

Weed scientist from states including Arkansas and Missouri are skipping the summit due to concerns about Monsanto's response to the complaints of damage, Reuters reports. Kevin Bradley, a University of Missouri plant sciences professor who has tracked crop damage from dicamba sprayings, told Reuters he believes Monsanto is not willing to discuss volatilization and that he will not be attending the summit.

Scott Partridge, Monsanto's vice president of global strategy, told Reuters that the summit will be the largest meeting so far on dicamba and that at least half of the 60 people invited plan to attend.

(CropLife, September 28, 2017)

<http://www.croplife.com/crop-inputs/upcoming-monsanto-dicamba-summit-reportedly-causing-consternation-ag-science-community/>

## US COURT URGED TO EXPEDITE CHLORPYRIFOS CHALLENGE

US environmentalists and farmworker advocates want a federal court to expedite their challenge of the EPA's decision not to ban the organophosphate insecticide, chlorpyrifos. They argue that the move is warranted because the public is being exposed to unsafe levels of the active ingredient.

If EPA Administrator Scott Pruitt had finalised the proposed ban, growers would have ceased spraying food crops with chlorpyrifos "to avoid leaving residues on the food or risk that the food would be considered adulterated and subject to seizure and penalties" under federal law, the plaintiffs say in their October 13th motion with the US Court of Appeals for the Ninth Circuit. "Instead, by leaving chlorpyrifos tolerances in place, children and families are exposed every day to the kind of harm Congress directed EPA to prevent," according to the plaintiffs.

At issue is Mr Pruitt's March order denying a 2007 petition brought by the Natural Resources Defense Council (NRDC) and Pesticide Action Network North America (PANNA) that called on the EPA to revoke food tolerances for chlorpyrifos because of evidence of neurological harm from the insecticide.

After years of legal wrangling and scientific review, the EPA in November 2016 appeared to agree. The Agency said that cumulative exposures to the insecticide exceeded the safety standard as defined by the Federal Food, Drug and Cosmetic Act (FFDCA) and proposed granting the petition.

But the EPA faced strong pressure to reverse course from grower groups, the agrochemical industry and the USDA. Critics of the proposed ban raised concerns about the scientific integrity of the Agency's review and worries about the lack of affordable and effective alternatives. US farmers annually use an estimated 5-6 million pounds (2.3-2.7 million kg) of chlorpyrifos on some 50 crops, including almonds, apples, citrus fruit, maize and strawberries.

Mr Pruitt cited industry concerns in his March order and suggested that the EPA would not reconsider the concerns about chlorpyrifos until 2022.

The plaintiffs, including NRDC and PANNA, filed their suit in June. They say that Mr Pruitt caved in to industry pressure and failed to cite any new safety finding to justify the decision. The lawsuit alleges that the EPA violated the FFDCA and calls on the Ninth Circuit to force the Agency to impose a ban chlorpyrifos.

The EPA filed a motion with the Court last month to dismiss the case, arguing that the plaintiffs filed their complaint too soon. The Agency says that they must wait until it has completed a review of objections raised to the decision through the administrative process outlined by the FFDCA.

The plaintiffs counter that the EPA has shown little interest in considering administrative appeals to the chlorpyrifos decision.

A coalition of a dozen environmentalist and farmworker groups, along with seven US state attorneys general, filed appeals through the administrative process in June, but the EPA has yet to respond.

"Good cause exists to expedite proceedings," the plaintiffs say in their latest filing with the Court. "Despite an unbroken series of Agency findings beginning in 2014 that chlorpyrifos is unsafe ... children continue to be exposed to chlorpyrifos in their food, drinking water, and the air around their homes, schools, and playfields, putting them at risk of such brain impairments as lower IQ, attention deficit disorders, and developmental delays."

The plaintiffs are urging the Court to set an "expedited briefing schedule" once it has considered the EPA's motion to dismiss the case. (Pesticide & Chemical Policy/AGROW, October 17, 2017)



## **DISEASE-CARRYING MOSQUITOES ABOUND IN DEFORESTED LANDS, UF REPORTS**

Most disease-transmitting mosquito species live in deforested areas, a finding that may influence decisions on where and when to cut down trees, a new University of Florida study shows.

Deforestation occurs when people remove trees to make way for neighborhoods, farms, shopping centers and other land uses, said Nathan Burkett-Cadena, a UF/IFAS entomologist and lead author of the study.

For their study, Burkett-Cadena and Amy Vittor, a UF assistant professor of infectious diseases and global medicine, synthesized and examined data from prior studies that had looked at how many pathogen-carrying mosquito species made their homes in forested lands vs. non-forested lands in 12 countries worldwide, including the United States.

They found that about half -- 52.9 percent -- of the species were more abundant in deforested habitats. Of those species that favored deforested areas, more than half --56.5 percent -- carry viruses harmful to humans, the study showed. More importantly, all of the species that carry multiple human pathogens were more common in deforested land, said Burkett-Cadena, a faculty member at the UF/IFAS Florida Medical Entomology Laboratory in Vero Beach, Florida.

“This research shows that when we convert forest to other uses, we make habitat for the mosquitoes that carry our diseases,” said Burkett-Cadena. “The takeaway message is that our forests provide benefits above and beyond the biodiversity they sustain, the products they provide -- such as food, lumber and medicine -- and the recreational opportunities that they provide. Forests are poor habitat for most of our disease-carrying mosquitoes.”

“Humans need to take this into account as we make decisions and policies about what we do with our remaining forests,” Burkett-Cadena said. “Given the rapid pace of global land-use change and deforestation, it is imperative that these dynamics are better understood to mitigate disease risk and guide land-use policy.”

Mosquito-borne diseases account for more than 17 percent of infectious diseases in people, according to the World Health Organization. The most common virus, dengue, is estimated to infect 390 million people per year, according to a 2013 study led by an Oxford University researcher. The UF/IFAS study is published in the journal *Basic and Applied Ecology*. (PCT Online, October 10, 2017) <http://www.pctonline.com/article/deforested-land-mosquito-study-uf/>

## **US FDA HANDS EPA LEAD ROLE ON GM MOSQUITOES**

The US FDA has finalised guidance that effectively transfers much of its authority to regulate genetically modified mosquitoes to the EPA, concluding that the GM insects are pesticide products and not "drugs" that fall under its regulatory authority.

Published on October 4th, the FDA guidance explains that the EPA is the primary federal agency for oversight of GM mosquitoes that are "intended to function as pesticides by preventing, destroying, repelling or mitigating mosquitoes" for population control purposes.

The FDA confirmed that it would retain authority to regulate GM mosquitoes that it considers new animal drugs because of claims of disease prevention. The new interpretation of authorities is "consistent with congressional intent and provides a rational approach for dividing responsibilities" between the two agencies, according to the FDA.

The agency proposed the guidance in January and received favourable comments from US pesticide interests and farm groups on the proposal. GM mosquito developer Oxitec (a subsidiary of Intrexon) also voiced support for the change in oversight.

Environmentalists were cautiously supportive, favouring the change but arguing that Congress should craft a specific law outlining how GM insects should be reviewed and regulated. (Pesticide & Chemical Policy/AGROW, October 6, 2017)

## **FAMILY AWARDED MORE THAN \$500,000 FOLLOWING HOTEL BED BUG INCIDENT**

On Oct. 2, a jury awarded an Arkansas family \$546,000 for trauma they said they experienced while staying in a hotel room infested with bed bugs in 2013, Arkansas Online reported.

As reported by Arkansas Online, four years ago Alex and Martha McKindra, both 63, checked into the Hilton Garden Inn Ontario/Rancho Cucamonga while visiting their son in California. The couple's attorney, Brian Virag, said Martha McKindra still thinks about bed bugs often, fears hotels and struggles to sleep.

On Oct. 2, a San Bernardino County Superior Court jury found that Martha McKindra suffered "severe emotional distress" as a result of the 2013 stay.

During a deposition, Virag said the hotel manager acknowledged that the property's pest policy had not changed three years after the incident. In court, he argued the hotel knew about its infestation and had experienced problems with bedbugs before and after his clients' 2013 stay. (PCT Online, October 11, 2017)

<http://www.pctonline.com/article/arkansas-family-bed-bug-settlement/>

## **BRITISH AIRWAYS APOLOGISES FOR BED BUGS ON CANADA FLIGHT**

British Airways has apologized to a Canadian family after they were bitten by bed bugs on an overnight flight.

Heather Szilagyi was flying from Vancouver to London with her eight-year-old daughter and fiancé earlier this month, CTV reported.

After spotting the bugs, Ms Szilagyi complained to the flight attendant but was told she could not change seats.

She said she and her daughter woke up the next morning covered in bug bites.

British Airways offered an apology to the family.

"We have been in touch with our customer to apologize and investigate further," an airline representative said in a statement.

"British Airways operates more than 280,000 flights every year, and reports of bed bugs on board are extremely rare.

"Nevertheless, we are vigilant and continually monitor our aircraft."

Ms Szilagyi said that as someone who has worked in the hotel industry, she easily spotted several on the seat in front of her during the flight.

She said she had alerted the flight attendant, but was told nothing could be done.

"She was like, 'Oh ok, sorry about that. We're sold out. We don't have anywhere to move you'," Ms Szilagyi told CTV Vancouver.

Once they landed, Ms Szilagyi said she and her daughter were covered in bug bites. She phoned customer service to alert them to the problem and to ask that they not be on the same plane going home.

After several attempts to get through to customer service failed, she posted pictures of the bites on Twitter.

The airline then reached out to apologize, and offered them an upgrade to business class for their flight home.

"We were not asking for a refund. All we were asking for was a flight on a different plane, to make sure it was a different plane, to make sure that the plane that was infested with bed bugs was taken care of," she told CTV. (BBC, October 19, 2017) <http://www.bbc.com/news/world-us-canada-41685266>

## **HUMAN EXPOSURE TO GLYPHOSATE HAS SKYROCKETED 500% SINCE INTRODUCTION OF GMO CROPS**

Glyphosate—the most widely applied herbicide worldwide and the controversial main ingredient in Monsanto's star product Roundup—is not just found on corn and soy fields. This pervasive chemical can be detected in everyday foods such as cookies, crackers, ice cream and even our own urine.

In fact, researchers from the University Of California San Diego School Of Medicine found that human exposure to glyphosate has increased approximately 500 percent since 1994, when Monsanto introduced its genetically modified (GMO) Roundup Ready crops in the United States.

"Our exposure to these chemicals has increased significantly over the years but most people are unaware that they are consuming them through their diet," said Paul J. Mills, PhD, UC San Diego School of Medicine professor of Family Medicine and Public Health and director of the Center of Excellence for Research and Training in Integrative Health.

For the study, published Tuesday in JAMA, the research team analyzed the urine excretion levels of glyphosate and aminomethylphosphonic acid (AMPA) in 100 people from a Southern California community over five clinic visits between 1993 to 1996 and 2014 to 2016. AMPA is one of the primary degradation products of glyphosate.

"The data compares excretion levels of glyphosate and its metabolite aminomethylphosphonic acid in the human body over a 23-year time span, starting in 1993, just before the introduction of genetically modified crops into the United States," Mills explained.

"What we saw was that prior to the introduction of genetically modified foods, very few people had detectable levels of glyphosate. As of 2016, 70 percent of the study cohort had detectable levels."

Of study participants with detectable levels of these chemicals, the mean level of glyphosate increased from 0.203 micrograms per liter in 1993-1996 to 0.449 micrograms per liter in 2014-2016. For AMPA, the mean level increased from 0.168 micrograms per liter in 1993-1996 to 0.401 micrograms per liter in 2014 to 2016.

The controversy surrounding glyphosate started in 2015 when the World Health Organization's cancer assessment arm classified glyphosate as "probably carcinogenic to humans." California also listed glyphosate as a carcinogen in July. And just yesterday, the European Parliament, representing 28 countries and more than 500 million people, voted in support of phasing out glyphosate over the next five years and immediately banning its use in households.

Monsanto has adamantly defended the safety of its product and denies it causes cancer. The U.S. Environmental Protection Agency (EPA) also considers it safe for use. Europe's food safety authority (EFSA) also concluded that glyphosate does not cause cancer.



The researchers did not study the health outcomes of the participants but Mills and his colleagues are planning several follow-up studies, according to Consumer Reports.

Additionally, Consumer Reports noted that the concentrations that the researchers measured were far below the EPA's daily exposure limit of 1.75 mg/kg and the European Union's limit of 0.3 mg/kg.

However, experts are concerned about this increasing glyphosate exposure. As Jennifer Sass, Natural Resources Defense Council Senior Scientist wrote:

"Unfortunately, it is difficult to know what these levels in our bodies mean for our health risks, since the US Environmental Protection Agency (EPA) has failed to conduct a proper risk assessment for glyphosate that includes the aggregate of all our glyphosate exposures—as required by law—from food, drinking water, and residential uses of the herbicide. Even worse—federal agencies don't even know how much glyphosate is in our food and drinking water because glyphosate has never been included in the federal pesticide residue testing program. This is completely outrageous given that it is used at approximately 300 billion pounds annually in U.S. agriculture, including on food crops like corn and soybeans. The US Food and Drug Administration (FDA) has only recently started to test for residues of glyphosate in common foods, and only after tremendous public pressure."

Monsanto has also come under heavy scrutiny over reports that EFSA lifted text from the company's glyphosate renewal application. Documents also suggest Monsanto employees had ghostwritten safety reviews to cover up glyphosate's health risks. The agritech giant is facing more than 250 lawsuits from plaintiffs alleging that they or their loved ones developed non-Hodgkin lymphoma due to exposure to Roundup.

Mills recommended more studies on the human health impact on the increasing exposure to glyphosate from food.

“The public needs to be better informed of the potential risks of the numerous herbicides sprayed

onto our food supply so that we can make educated decisions on when we need to reduce or eliminate exposure to potentially harmful compounds," he said.

(EcoWatch, Oct. 25, 2017)

<https://www.ecowatch.com/glyphosate-exposure-humans-2501317778.html>

## CEU Meetings

Date: November 1, 2017

Title: BWI Pest Control Seminar

Location: Hard Rock Casino Catoosa OK

Contact: Tim Ruminer (405) 227-2985

Course #: OK-17-147 A-E

CEU's:	Category(s):
3	7A
2	7B
5	10

Date: November 2, 2017

Title: Rights of Way and Bare Ground Work Shop

Location: Courtyard Marriott Norman OK

Contact: Joshua Britt (580) 235-3816

Course #: OK-17-133 A-F

CEU's:	Category(s):
6	6
6	10

Date: November 6, 2017

Title: BWI Free Pest Control CEUs

Location: Hampton Inn Suites Lewisville TX

Contact: Tim Ruminer (405) 227-2985

Course #: OK-17-146 A-E

CEU's:	Category(s):
2	3A
2	7A
1	7B
1	8
5	10

Date: November 6-8, 2017

Title: 2017 Oklahoma Ag Expo

Location: Embassy Suites Norman OK

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

Course #: OK-17-115 A-L

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

Date: November 7, 2017

Title: Target Tulsa Workshop 2017

Location: Hard Rock Hotel and Casino Catoosa OK

Contact: Jennifer Gonzalez (800) 352-3870

Course #: OK-17-145 A-F

CEU's:	Category(s):
1	ALL
2	3A
3	7A
2	7B
2	8
2	10

Date: November 8, 2017

Title: Oklahoma Recreation and Park Society  
Maintenance track

Location: Ardmore Convention Center  
Ardmore OK

Contact: Joe Medlin (918) 246-2561

Course #: OK-17-135 A-B

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

Date: November 17, 2017 (Rescheduled)  
Title: OAAA 2017 Operation SAFE Fly-In  
Location: El Reno OK  
Contact: Sandy Wells (405) 341-3548  
Course #: OK-17-125

CEU's:           Category(s):  
1                    A

Date: January 10, 2018  
Title: 2018 Professional Applicator Training  
Location: Redlands Community College El Reno  
OK  
Contact: Tammy Ford-Miller (580) 233-9516  
Course #: OK-17-148 A-F

CEU's:           Category(s):  
6                    1A  
6                    10

Date: February 3, 2018  
Title: Integrated Pest Management for the Food  
Environment  
Location: Holiday Inn Express Denton TX  
Contact: FISA Deborah Murphy (913) 397-1185  
Course #: OK-17102 A-E

CEU's:           Category(s):  
4                    7A  
2                    7C  
5                    10

## ODAFF Approved Online CEU Course Links

**PestED.com**  
<https://www.pested.com/>

**CEU School**  
<http://www.ceuschool.org/>

**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://ctnedu.com/oklahoma\\_applicator\\_enroll.html](http://ctnedu.com/oklahoma_applicator_enroll.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>

**Western Farm Press Principles & Efficient Chemigation**  
<http://www.pentonag.com/Valmont>

For more information and an updated list of  
CEU meetings, click on this  
link:<http://www.oda.state.ok.us/cps-ceuhome1.htm>

## ODAFF Test Information

Pesticide applicator test sessions dates and locations for November/December are as follows:

November		December	
2	Tulsa	5	OKC
7	Goodwell	5	Goodwell
7	OKC	5	McAlester
7	McAlester	7	Tulsa
14	Hobart	11	OKC
16	Tulsa	12	Ardmore
20	OKC	13	Lawton
21	Ardmore	14	Enid
		18	OKC
		21	Tulsa

Altus: SW Research & Extension Center  
16721 US HWY 283

Atoka: KIAMICHI TECH CENTER 1301  
W Liberty Rd, Seminar Center

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,  
920 S. Sheridan Road.

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

OKC: Arcadia Conservation Education  
Building 7201 E 33<sup>rd</sup> St. Edmond  
OK (**New Location**)

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

<h1>Pesticide Safety Education Program</h1>
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