

PESTICIDE REPORTS

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



March, 2017

CHEM

- 1 APRIL TEST HELP SESSIONS
- 2 NEW WORKER PROTECTION STANDARD (WPS)
HOW TO COMPLY MANUAL AND OTHER
RESOURCES AVAILABLE
- 2 REGIONAL LISTENING SESSIONS GIVE FARMERS
A VOICE IN THE BATTLE AGAINST HERBICIDE
RESISTANCE
- 4 SCIENTISTS WORKING ON WATER-RESISTANT
ANT BAIT
- 4 UF ENTOMOLOGIST WORKING ON ZIKA
DETECTION
- 5 USDA OPPOSES EPA BID TO BAN CHLORPYRIFOS
- 6 PUBLIC CONFUSION OVER GENETICALLY
MODIFIED FOODS BLAMED ON POST TRUTH
- 7 'I LITERALLY WANTED TO DIE': WOMAN CLAIMS
SHE WAS BITTEN BY HUNDREDS OF BED BUGS
AT ATLANTIS RESORT
- 8 RULING AFFIRMED IN COLORADO PESTICIDE
TRESPASS CASE
- 9 MONSANTO KEEN TO INTERVENE IN DICAMBA
APPROVAL CHALLENGE
- 10 CEU MEETINGS
- 11 ONLINE CEU LINKS
- 11 ODAFF TEST SESSION INFORMATION

APRIL TEST HELP SESSIONS

The OSU Pesticide Safety Education Program will conduct the next test help sessions for 2017 in April. Mark your calendars the workshops will be held April 6th in Tulsa and April 20th in Oklahoma City.

The Tulsa session will be at the Tulsa County Extension Office at 4116 E. 15th. **The Oklahoma City Test help session will at the new 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!

More Test Help Workshop dates are scheduled for 2017. Please go to the website below for the 2017 dates.

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

NEW WORKER PROTECTION STANDARD (WPS) HOW TO COMPLY MANUAL AND OTHER RESOURCES AVAILABLE

A new Worker Protection Standard (WPS) How to Comply Manual is available for growers to keep up with the changes in WPS that have went into effect.

A website has been put up on the Pesticide Educational Resources Collaborative website with essentially an electronic version of the How to Comply Manual. This website breaks out each chapter of the manual into hyperlinked webpages to make it easy to find specific information. Please go to <http://pesticideresources.org/wps/htc/index.html> to find the online How to Comply Manual.

For more WPS information and resources such as online training videos and handouts please go to the main webpage at <http://pesticideresources.org//index.html> to find that material.

More WPS information can be found at the websites below.

<https://www.epa.gov/pesticide-worker-safety/revisions-worker-protection-standard>

<http://npic.orst.edu/reg/wps.html>

<http://www.extension.iastate.edu/psep/WorkerProtection.html>

If you have any questions on the new WPS rules please contact Charles Luper at the OSU Pesticide Safety Education Program at 405-744-5808.

REGIONAL LISTENING SESSIONS GIVE FARMERS A VOICE IN THE BATTLE AGAINST HERBICIDE RESISTANCE

Both scientists and regulators have had a lot to say about the growing problem of herbicide resistance and how weed management techniques need to change in response. However, there have been few organized opportunities for farmers to make their voices heard and to share their experiences in managing herbicide-resistant weeds.

All that is changing with a series of seven regional listening sessions sponsored by the Weed Science Society of America (WSSA), the United Soybean Board and the USDA Animal and Plant Health Inspection Service. Farmers across the nation are being invited to share their challenges, successes and opinions.

Several sessions have been held to date. The themes that have emerged from the participants reflect the complexity of herbicide resistance management and the breadth of viewpoints about what needs to be done. Examples are illustrated below:

- There remains an economic tradeoff between the decreased crop yields and increased long-term costs from resistant weeds versus the increased short-term costs of adopting resistance prevention practices. As a result, it is hard for growers to commit to resistance management early, before they

have the problem. This is particularly true with low commodity crop prices.

- More research and education are still needed to help growers better manage their farms and the weed seed bank year round.
- There is an understanding that individuals cannot solve the problem themselves, but there is not a clear idea on how to work together.
- Participants are wary of regulation to deal with resistance, but there is some acceptance that some regulations may be needed to get everyone playing by the same rules.
- A greater emphasis is needed on nonchemical weed control tactics, including cultivation, weed seed management and use of cover crops.
- Zero tolerance policies for problematic, herbicide-resistant weeds should apply to everyone, including landowners, native seed producers and departments of transportation responsible for highway medians and rights of way.
- There is a scarcity of herbicides available to help growers of vegetable and specialty crops diversify weed control and battle herbicide resistance. Many hope researchers will develop new weed control chemistries with different mechanisms of action.

The idea for the listening sessions came about as a WSSA committee discussed plans for a third national summit on herbicide resistance. “We decided it was time to focus on the needs and concerns of those making or influencing weed management decisions, rather than rehearing what weed scientists think,” says Michael Barrett, Ph.D., WSSA EPA liaison and academic subject matter

expert. “The sessions are giving us a chance to hear the perspectives of those farming in a wide range of landscapes using a wide variety of cropping systems. The information will help us better tailor future initiatives.”

New Materials Available to Support Resistance Management

Concurrent with the listening sessions on herbicide resistance, new materials have been introduced to help farmers make smart decisions in the battle against herbicide-resistant weeds.

A newly updated herbicide classification chart provides growers with a ready point of reference on various families of chemicals, active ingredients, product trade names and sites of action. The chart is published by the Take Action Program, a farmer-focused education platform funded by the soybean checkoff and collectively endorsed by agricultural chemical companies, land-grant university weed scientists, and soybean, corn, cotton, sorghum and wheat commodity groups.

“Using varying weed control chemistries to target multiple sites of action is important to the prevention and management of herbicide resistance,” says WSSA member Christy Sprague, a professor at Michigan State University who led the update effort. “Previous versions of the chart have been extremely popular among growers, and we hope this updated version will be as well.”

In addition to the site of action chart, www.TakeActionOnWeeds.com offers a wide variety of resources on herbicide resistant weeds and how to best manage them. (CropLife, February 27, 2017) <http://www.croplife.com/crop-inputs/herbicides/regional-listening-sessions-give-farmers-a-voice-in-the-battle-against-herbicide-resistance/>

SCIENTISTS WORKING ON WATER-RESISTANT ANT BAIT

A team of researchers from the United States Department of Agriculture's Agricultural Research Service is conducting experiments on a new water-resistant bait that has been showing promise, ESA reported.

Baits for fire ants have mostly gone unchanged since they were first developed in the 1960s — half a century ago — despite the significant drawback that the typical bait carrier breaks down in wet conditions. However, a new ant bait formulation that is water-resistant offers promise, say USDA-ARS researchers. Their comparison study is published in the *Journal of Economic Entomology*.

The USDA team conducted an experiment that deployed existing ant baits and water-resistant baits in closely matched wet conditions. Both baits carry an active ingredient that inhibits the ability of an ant colony's queen to produce eggs. At the end of the 13-week test period, half of the red imported fire ant colonies exposed to standard bait were no longer producing worker ants, while none of the colonies exposed to the water-resistant bait were producing workers.

USDA's Robert Vander Meer says the experiment was designed carefully to ensure that similar-sized ant colonies were compared and that they were exposed to baits under the same moisture and temperature conditions. "If you're comparing two formulations of the same insecticide, at the same rates, then you have to control variables as much as you can, or else you're not going to be able to show significant differences between the two," he says. "We were very happily surprised."

The water-resistant, or hydrophobic, ant bait, Erasant, is produced in Taiwan, by Chung Hsi Chemical Plant Ltd. The company has a U.S. patent, but the bait is not currently available in the United

States. (PCT Online February 27, 2017)

<http://www.pctonline.com/article/scientists-water-resistant-ant-bait/>

UF ENTOMOLOGIST WORKING ON ZIKA DETECTION

A University of Florida Institute of Food and Agricultural Sciences entomologist will use a \$200,000 grant from the Florida Department of Health to improve tests for the detection of Zika virus.

In 2016, Florida saw 1,272 cases of Zika, which is usually associated with mild symptoms, although severe symptoms may also occur, including Guillain-Barré syndrome and birth defects in babies, according to the U.S. Centers for Disease Control and Prevention. Of those, 256 were locally acquired. So far this year, four more cases have been reported, all travel-related.

Barry Alto, a UF/IFAS assistant professor of medical entomology, said scientists need better diagnostic tools to detect Zika virus to meet challenges to public health. He is working with Steven Benner at Firebird Biomolecular Sciences LLC to develop methods they hope should take about an hour – far less time than current testing methods. Existing methods require specialized equipment and highly trained personnel, so samples must be transported to specialized laboratory facilities to perform the tests.

Alto will work with Benner, a former UF chemistry distinguished professor and founder of Gainesville-based Firebird Biomolecular Sciences LLC. Together, they plan to develop an inexpensive, user-friendly and rapid diagnostic Zika test.

“The project has the potential to impact the health of Floridians,” said Alto, a faculty member at the UF/IFAS Florida Medical Entomology Laboratory in Vero Beach, Florida. “It can improve surveillance by advanced warning of Zika transmission through tests of mosquito samples, allow for strategic deployment of limited resources by mosquito control to reduce incidence and prevalence of Zika and improve health care to Floridians by rapid diagnosis in human samples.”

Alto and Benner will combine current Zika-detection techniques with innovations in synthetic biology. Those include AEGIS (artificially expanded genetic information system), which allows pathogen nucleic acid-targeted tests to be ultra clean and SAMRS (self-avoiding molecular recognition systems) that allow ease of multiplexing of pathogen nucleic acid-targeted test so other arboviruses can be detected in addition to Zika virus.

During the one-year project, scientists will travel to Florida’s public health service labs to demonstrate the technique and to test their method to detect Zika and other arboviruses.

“We are interested in getting feedback from individuals involved in mosquito control and public health,” Alto said.

Zika can be transmitted when a female mosquito, most likely an infected *Aedes aegypti*, bites a human. The virus can cause birth defects, including microcephaly, or a smaller-than-normal head, in babies as well as Guillain-Barré syndrome, a condition in which the immune system attacks your nervous system. Currently there is no vaccine available for Zika virus.

To try to avoid mosquito bites, UF/IFAS Extension faculty urge people to stay indoors or wear long-sleeve shirts and pants if they’re outdoors, especially during the day, when mosquitoes that

might transmit the Zika virus are more likely to bite. They also urge people to apply mosquito repellent containing DEET and remove mosquito-breeding habitats by removing water from containers because that’s where mosquitoes lay their eggs and the immature stages develop. (PCT Online, February 16, 2017) <http://www.pctonline.com/article/alto-zika-detection-grant/>

USDA OPPOSES EPA BID TO BAN CHLORPYRIFOS

The USDA has expressed "grave concerns" about the EPA's scientific review of the potential human health risks from chlorpyrifos and is urging the Agency to abandon its plan to revoke food tolerances for the organophosphate insecticide.

The EPA has published "three wildly different" human health risk assessments for chlorpyrifos within two years and the USDA says that it has "severe doubts about the validity of the scientific conclusions" underpinning the Agency's latest analysis.

The USDA outlined its concerns in a letter sent last month to the EPA by Sheryl Kunickis, director of the USDA's Office of Pest Management Policy. The letter comes as the EPA faces a court-ordered deadline of March 31st to formally respond to a petition calling on it to revoke food tolerances for chlorpyrifos. The petition was filed in 2007 by environmentalists worried about the potential neurological harm from the insecticide to children and farmworkers.

In response to an earlier court order, the EPA proposed revoking tolerances for chlorpyrifos in October 2015, concluding that aggregate exposures run afoul of the Federal Food, Drug and Cosmetic Act. Last November, the Agency released its refined drinking water assessment as well as further analysis of the human health risks from the insecticide and concluded that the science supported its plan to revoke tolerances.

Tolerance revocation would spell the end of agricultural uses of chlorpyrifos and would have ripple effects across the pesticide and agricultural industries. US farmers use an estimated 5-6 million lbs (2,268-2,722 tonnes) of the insecticide annually on more than 50 food crops, including almonds, apples, citrus fruits, maize and strawberries.

Echoing criticisms raised by the pesticide industry and grower groups, the USDA questions the EPA's use of a controversial epidemiological study to support its plan and suggests that the Agency has ignored the advice of its own scientific experts. "[The EPA] continues to rely on this study and has now paired it with an inadequate dose reconstruction approach," according to the USDA letter. "In light of these developments, USDA calls on EPA to deny the ... petition. This would allow EPA to ensure the validity of its scientific approach as part of the ongoing registration review process, without the excessive pressure caused by arbitrary, litigation-related deadlines."

(Pesticide & Chemical Policy/AGROW, February 24, 2017)

PUBLIC CONFUSION OVER GENETICALLY MODIFIED FOODS BLAMED ON POST TRUTH

Joseph Perrone, chief science officer at the Center for Accountability in Science, has some thoughts on post-truth and alternative facts: He believes there is a lot of it in the "circus of public confusion" over genetically modified (GM) foods and associated weed killers.

Perrone has waded into the debate because he believes it is an excellent example of where emotional responses trump scientific truth.

And if these are the standards when big policy decisions are made in Congress and the White House, ones that fly in the face of data, then "we are

going to be living in a world of chaos," Perrone told Crop Protection News.

Perrone said there are some opponents arguing against genetically modified foods and the herbicide glyphosate – the best known is Monsanto's Roundup – because they simply do not like the idea of, or are uncomfortable with, genetically engineered foods.

"But there are hundreds of health studies (showing) there is no health threat from genetically modified foods or glyphosates," Perrone said.

Yet, Perrone said he fears that policy decisions are being made that fly in the face of the scientific evidence, and he blames it in part on inaccurate reporting of scientific studies in the area. Single studies are misinterpreted and, in the hypercompetitive news cycle, reporters rush to publish without checking the background science.

Perrone, in an article in the National Review, argued that genetically modified produce and glyphosate face uncertainty from every angle.

And he cited the signing in July of a law mandating GM-labeling after it passed both houses with large majorities. It gives food manufacturers two years to adopt one of three labels to inform consumers of the presence of GM ingredients in products.

"Despite White House recognition of the 'broad consensus that foods from genetically engineered crops are safe,' pandering to unscientific misgivings suggests that foods containing GMs are something to be avoided." Perrone wrote.

"In truth, glyphosate has been subjected to extensive toxicological review in the decades since its creation," he argued. "Data from over 300 independent studies consistently fail to implicate glyphosate as a danger to human development, reproduction, hormone regulation or immunological or neurological functioning."

The labeling law was a compromise and was designed in part to override state laws, such as one in Vermont that is arguably much stricter. Food companies were broadly supportive of the law.

But it is not clear what will happen under President Donald Trump and his pick for secretary of agriculture, former Georgia Gov. Sonny Perdue.

The USDA was working on a rule to implement the labeling, which was expected to be published later this year for introduction the following year. But an advance notice of proposed rulemaking, part of the public comment process, was withdrawn under the new administration.

And an executive order stating that all departments must find two regulations to eliminate before introducing a new one may also stymie, or delay, the introduction of the labeling rule.

In a statement, the American Soybean Association said it is unclear how exactly the executive order will impact the implementation of the GMO labeling law. (Crop Protection News, February 16, 2017)

<http://cropprotectionnews.com/stories/511082994-public-confusion-over-genetically-modified-foods-blamed-on-post-truth>

'I LITERALLY WANTED TO DIE': WOMAN CLAIMS SHE WAS BITTEN BY HUNDREDS OF BED BUGS AT ATLANTIS RESORT

A Florida woman filed a lawsuit against the Atlantis Paradise Resort in the Bahamas alleging that she woke up covered with crawling bed bugs.

The Miami Herald reported Thursday that Cindi Avila was staying in a room at the Royal Towers during a January 2016 vacation at the resort. At the last night of her stay she said she woke up to “hundreds of painful, swollen bites from her forehead to her thighs.”

“It was like something out of a horror movie,” she told the Herald. “I pulled up the mattress and I was shocked at what I saw.”

Avila said she took pictures and video of the bites and the dozens of tiny insects crawling on the bed skirt. The paper reported that tiny black excrement can also be seen on the skirt. Avila started to record herself after she was told that the room wouldn't be exterminated until she left the resort.

Avila, a public relations expert based in Florida, said a manager and a security officer were called to the room and “screamed” when they saw the shape of the bed. Atlantis said in a statement it took the room out of commission and didn't charge Avila for her and her husband's stay.

A nurse at the resort treated the bug bites with calamine lotion, but Avila claims she was still dealing with the pain with two to three weeks upon returning home. She said she treated the bites with a smorgasbord of medication, including steroids and over-the-counter allergy treatments.

“In the days that followed, I have never experienced more pain,” Avila said. “I didn't sleep for five days. I literally wanted to die.”

Avila filed the lawsuit last week in Florida state civil court. It alleges that Atlantis was “negligent in adopting hygienic practices” when cleaning the room. She's also seeking damages of up to \$15,000.

Atlantis, however, countered Avila's claim, saying in a statement that she's just out for a money grab.

“The resort offered to reimburse Ms. Avila for any medical bills resulting from her experience, which she declined,” Atlantis said. “Since that time, Ms. Avila has repeatedly, and through three different attorneys, attempted to extract a large financial settlement from the resort and threatened intimidation in the media if her financial demands were not met.”

Avila's attorney Michael Winkleman told CBS Miami that he's handled dozens of bed bug cases, but nothing that compares to his client's current case.

"When you check into a hotel, the Atlantis hotel that is really a five-star hotel, that comes with expectations, one of which is the sheets are going to be clean and you're not going to be eaten alive by bedbugs." (Fox News Travel, January 20, 2017) <http://www.foxnews.com/travel/2017/01/20/literally-wanted-to-die-woman-claims-was-bitten-by-hundreds-bed-bugs-at-atlantis-resort.html>

RULING AFFIRMED IN COLORADO PESTICIDE TRESPASS CASE

After years of legal battle, the Colorado Court of Appeals last week affirmed a ruling that Colorado rancher, James Hopper, must serve two days in jail and pay a \$7,500 fine for spraying pesticides that drifted onto his neighbor's farm in violation of a 2012 court order protecting his neighbors. In 2012, organic farmers Rosemary Bilchak and her husband Gordon MacAlpine, were granted a permanent injunction prohibiting pesticide applications within 150 feet of the property line in order to reduce pesticide drift. Last week's decision bolsters a legal precedent that wafting pesticides can constitute a trespass against which adjacent landowners and people with health sensitivities are protected.

The legal battle began in 2011 when Mr. Hopper obtained his Colorado pesticide applicator's license and applied the adulticide Fyfanon, which contains the organophosphate insecticide Malathion, to kill mosquitoes on his property. However, the pesticide drifted onto Ms. Bilchak and Mr. MacAlpine's organic vegetable farm. In 2012, a District Court Judge ruled that they have a right not to have their property invaded by other people or things, and prohibited Mr. Hopper from fogging for mosquitoes within 150 feet of his neighbor's property or allowing the pesticides to drift, considering this to be a form of trespass. Nevertheless, Mr. Hopper ignored the ruling and continued fogging. Court

records show he persisted through August 2015. Last year, a state judge sentenced him to jail and imposed a \$7,500 fine for violating the court order. After months of appealing the ruling, Mr. Hopper will face his sentence.

"This is very important to us," Ms. Bilchak said. Mr. MacAlpine, diagnosed with leukemia before moving to Colorado, had been told by his doctor to avoid pesticide exposure and was registered with the Colorado Department of Agriculture as a sensitive resident. "It is important for us personally, for his health condition, and because we also set a precedent that pesticide drift is a trespass," she said.

Pesticide drift is an inevitable result of pesticide application. Adulticides that are spraying into the air, like the one used by Mr. Hopper, remain suspended in the air and can be carried great distances by the wind. Pesticides can also volatilize from surfaces into the air and be transported. Documented exposure patterns resulting from drift cause particular concerns for children and other sensitive population groups, as adverse health effects such as nausea, dizziness, respiratory problems, headaches, rashes, and mental disorientation may appear even when a pesticide is applied according to label directions. Sensitive sites like schools, playground and organic farms are especially vulnerable to drifting pesticides. Contaminated organic farms can lose their organic certification if pesticide residues on their crops exceed organic standards.

"This case sets a level of protection for Coloradans who care about their private property and for organic farmers who need to keep their property safe from pesticide exposure," said Boulder-based attorney Randall Weiner, who handled the case. "No one is exempt from the responsibility to comply with court orders. This spraying had gone on for seven years, and an individual was caught red-handed," Mr. Weiner said. "The underlying decision, which the courts forcefully have affirmed, is that pesticide spraying can constitute a trespass on private property, organic farmers, and people whose health is precarious."

In 2011, the Minnesota Court of Appeals ruled that pesticides drifting from one farm to another may constitute trespass, and courts in other states

have ruled in favor of organic farmers. Pesticide drift is not only a problem for organic growers. Pesticide drift has been suspected in tree deaths throughout the East Coast and Midwest. A 2011 study by the Centers for Disease Control and Prevention's (CDC) National Institute for Occupational Safety and Health (NIOSH) has found that pesticide drift from chemical-intensive farming has poisoned thousands of farmworkers and rural residents.

(Beyond Pesticides, February 7, 2017)

<http://beyondpesticides.org/dailynewsblog/2017/02/ruling-affirmed-colorado-pesticide-trespass-case/>

MONSANTO KEEN TO INTERVENE IN DICAMBA APPROVAL CHALLENGE

Monsanto wants to intervene in a lawsuit that aims to block the US EPA's approval of its XtendiMax herbicide (dicamba, diglycolamine salt). The litigation in question was filed on January 20th by a coalition of environmentalists. It alleges that the EPA violated federal pesticide law and the Endangered Species Act when it issued the conditional registration for XtendiMax in November 2016.

The registration allows use of the herbicide on Monsanto's genetically modified dicamba-tolerant Xtend cotton and soybeans in 34 states, but it will expire in two years if there are problems with pesticide drift or weed resistance. The Agency is also requiring Monsanto to work with growers to identify, report and mitigate any signs of weed resistance to dicamba and has imposed specific restrictions to address drift.

But the plaintiffs are not convinced that the drift mitigation measures go far enough and want the Court to reverse the EPA's approval.

The EPA has yet to file its response to the complaint, but Monsanto says that its interests will not be adequately represented by the Agency and argues that it has a clear right to intervene in the litigation given its efforts to bring the herbicide to market. "Monsanto has a significant interest in

protecting its intellectual property and financial investment in the XtendiMax registration, the regulatory process leading to the registration, and ultimately in receiving revenue, in the form of sales and royalties, from XtendiMax, Xtend soybeans and Xtendflex cotton," the company explains in its February 17th motion with the US Court of Appeals for the Ninth Circuit. "Even if EPA were inclined to cite Monsanto's financial interests in opposition to any relief sought by petitioners, 'it cannot speak specifically to' the interests Monsanto holds in XtendiMax or its patents, or the impacts of the relief sought."

Monsanto is also facing two lawsuits related to its decision to begin selling its Xtend cotton and soybeans to US farmers prior to receiving the EPA's approval for the companion herbicide. Instructions provided with the Monsanto crops told customers not to apply existing dicamba products, but over the past 18 months, farmers in Missouri and other US states have allegedly ignored that warning and drift problems have emerged.

The first lawsuit, filed in December by a Missouri peach grower, alleges that dicamba drift has caused several million dollars' worth of damage to peach trees. The second lawsuit seeks class certification for farmers in ten states who have allegedly been harmed by dicamba drift. Both lawsuits argue that Monsanto is liable because of its decision to commercialise the GM crops before it was given approval for the XtendiMax herbicide. Monsanto rejects the allegations that it should be held liable for illegal pesticide applications as unreasonable and unwarranted. (Pesticide & Chemical Policy/AGROW, February 23, 2017)

CEU Meetings

Date: March 7-8, 2017

Title: 2017 Oklahoma No-Till Conference

Location: Grand Casino Hotel & Resort Shawnee OK

Contact: Josh Lofton (405) 744-3389

Course #: OK-17-042

notill.okstate.edu

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

Date: March 14, 2017

Title: 2017 Univar South OK Annual CEU Training

Location: Noble Foundation Ardmore OK

Contact: Deb Chambers (918) 622-2048

Course #: OK-17-043

www.vannetus.com

CEU's:	Category(s):
3	3A
5	7A
1	7b
1	8

Date: March 16, 2017

Title: 2017 Univar Annual CEU Training

Location: Clarion Hotel Broken Arrow OK

Contact: Deb Chambers (918) 622-2048

Course #: OK-17-043

www.vannetus.com

CEU's:	Category(s):
3	3A
5	7A
1	7b
1	8

Date: March 21, 2017

Title: Target OK Workshop 2017

Location: Reed Center Midwest City OK

Contact: Jennifer Gonzalez. (800) 352-3870

Course #: OK-17-049

CEU's:	Category(s):
2	3A
2	7A
2	7B
1	8
6	10

Date: March 28, 2017

Title: Ensystem 2017 OK CEU Workshop

Location: Holiday Inn Express 102 St Tulsa

Contact: Donald Stetler Jr. (281) 217-2965

Course #: OK-16-205

www.ensystem.com

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

Date: March 29, 2017

Title: Ensystem 2017 OK CEU Workshop

Location: Holiday Inn Express Midwest City Ok

Contact: Donald Stetler Jr. (281) 217-2965

Course #: OK-16-205

www.ensystem.com

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

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

Wood Destroying Organism Inspection Course

www.nachi.org/wdocourse.htm

CTN Educational Services Inc

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 March/April are as follows:

March		April	
7	Goodwell	10	OKC
9	Tulsa	12	Lawton
13	OKC	13	Tulsa
14	Hobart	24	OKC
23	Tulsa	27	Tulsa
27	OKC		

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 33rd St. Edmond
OK (New Location)

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

**Pesticide Safety
Education Program**