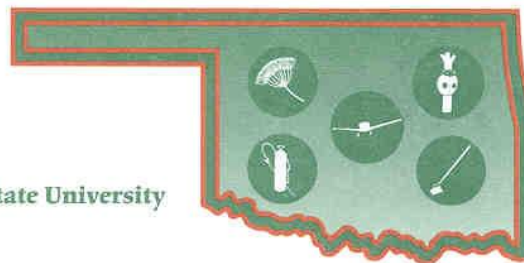


PESTICIDE REPORTS

Division of Agricultural Sciences and Natural Resources • Oklahoma State University

<http://pested.okstate.edu>



November, 2018

CHEM

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DECEMBER TEST HELP SESSIONS

The OSU Pesticide Safety Education Program will conduct the last test help workshops for 2018 in December. The workshops will be held December 5th in Oklahoma City and December 13th in Tulsa.

The Tulsa session will be at the Tulsa County Extension Office at 4116 E. 15th. The Oklahoma City Test help session will be 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 405-744-9037.

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!

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

EPA ANNOUNCES CHANGES TO DICAMBA REGISTRATION

On October 31, 2018, U.S. Environmental Protection Agency (EPA) announced that it is extending the registration of dicamba for two years for “over-the-top” use (application to growing plants) to control weeds in fields for cotton and soybean plants genetically engineered to resist dicamba. This action was informed by input from and extensive collaboration between EPA, state regulators, farmers, academic researchers, pesticide manufacturers, and other stakeholders.

“EPA understands that dicamba is a valuable pest control tool for America’s farmers,” **said EPA Acting Administrator Andrew Wheeler.** “By extending the registration for another two years with important new label updates that place **additional** restrictions on the product, we are providing certainty to all stakeholders for the upcoming growing season.”

The following label changes were made to ensure that these products can continue to be used effectively while addressing potential concerns to surrounding crops and plants:

Dicamba registration decisions for 2019-2020 growing season

- Two-year registration (until December 20, 2020)
- Only certified applicators may apply dicamba over the top (those working under the supervision of a certified applicator may no longer make applications)
- Prohibit over-the-top application of dicamba on soybeans 45 days after planting and cotton 60 days after planting

- For cotton, limit the number of over-the-top applications from 4 to 2 (soybeans remain at 2 over-the-top applications)
- Applications will be allowed only from 1 hour after sunrise to 2 hours before sunset
- In counties where endangered species may exist, the downwind buffer will remain at 110 feet and there will be a **new 57-foot buffer** around the other sides of the field (the 110-foot downwind buffer applies to all applications, not just in counties where endangered species may exist)
- Clarify training period for 2019 and beyond, ensuring consistency across all three products
- Enhanced tank clean out instructions for the entire system
- Enhanced label to improve applicator awareness on the impact of low pH's on the potential volatility of dicamba
- Label clean up and consistency to improve compliance and enforceability

The registration for all dicamba products will automatically expire on December 20, 2020, unless EPA further extends it. EPA has reviewed substantial amounts of new information and concluded that the continued registration of these dicamba products meets FIFRA’s registration standards. The Agency has also determined that extending these registrations with the new safety measures will not affect endangered species.

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

(EPA October 31, 2018)

<https://www.epa.gov/pesticides/epa-announces-changes-dicamba-registration>

COCONUT OIL COMPOUNDS REPEL INSECTS BETTER THAN DEET, USDA REPORTS

Using repellents is one of the most efficient ways to prevent disease transmission and discomfort associated with insect bites. For more than 60 years, DEET has been considered the gold standard in insect repellents—the most effective and long-lasting available commercially. However, increasing regulations and growing public health concerns about synthetic repellents and insecticides like DEET have sparked interest in developing plant-based repellents that are more effective and longer lasting.

In recent research published in *Scientific Reports*, USDA's Agricultural Research Service (ARS) scientists identified specific coconut oil fatty acids that have strong repellency and long-lasting effectiveness against multiple insects—mosquitoes, ticks, biting flies and bed bugs—that can transmit diseases to humans and animals.

A team of scientists led by entomologist Junwei (Jerry) Zhu, with the ARS Agroecosystem Management Research Unit in Lincoln, Nebraska, found that the coconut oil compounds were effective against biting flies and bed bugs for two weeks and had lasting repellency against ticks for at least one week in laboratory tests. In addition, the compound showed strong repellency against mosquitoes when higher concentrations of coconut oil compounds were topically applied.

Some people refuse to use DEET and turn to folk remedies or plant-based repellents. Most currently available plant-based repellents work for only a short period, Zhu noted.

Coconut oil itself is not a repellent, Zhu emphasized. However, the coconut oil-derived free fatty acid mixture—lauric acid, capric acid and caprylic acid as well as their corresponding methyl esters—provides strong repellency against blood-sucking insects. By encapsulating coconut fatty acids into a starch-based formula, field trials showed this all-natural formula could provide protection to cattle against stable flies for up to 96 hours or 4 days.

DEET was only 50 percent effective against stable flies, while the coconut oil compound was more than 95 percent effective.

Against bed bugs and ticks, DEET lost its effectiveness after about three days, while the coconut oil compound lasted for about two weeks. Coconut oil fatty acids also provided more than 90 percent repellency against mosquitoes—including *Aedes aegypti*, the mosquito that can transmit the Zika virus.

These coconut oil-derived compounds offer longer-lasting protection than any other known natural repellent against insect blood-feeding, according to Zhu.

ARS has filed a patent application for this new technology and is working with commercial companies to develop repellent formulas from coconut oil fatty acids. (PCT Online, November 1, 2018) <https://www.pctonline.com/article/coconut-oil-compounds-mosquito-repellent/>

8 REASONS WHY UNWANTED HERBICIDE RESIDUES MIGHT HAPPEN

There are several reasons why unwanted herbicide residues continue to find their way onto the wrong crops. This was one of main topics discussed in a report published by Purdue Extension titled “[Removing Herbicide Residues from Agricultural Application Equipment](#).”

Herbicides Are Active At Low Concentrations. Some herbicide products still call for applying pints or quarts of herbicide per acre, but many herbicides now have application rates measured in ounces per acre. Residues from products with these lower application rates can affect crops even when trace amounts are left in the application equipment.

Post-emergence Herbicide More Common. By definition, post-emergence herbicides are applied over an existing crop. So if there are any unwanted herbicide residues in the equipment, future

applications can damage or kill crops that you didn't intend.

Dry Formulations Are Popular. Herbicides formulated as dry products have become quite popular, because they are easy to handle, ship, and store. Most dry formulations create suspensions of the herbicide (similar to mixing clay in water), so they do not dissolve completely into the spray mixture. So unlike most liquid formulations, dry formulations require constant agitation to evenly suspend the product.

When applicators fail to allow enough mixing time, larger particles of the dry product can get trapped in a series of screens. The particles may remain in the sprayer system until applicators run enough water through the screens or another product solubilizes them into smaller pieces — which can then pass through the screens and out the nozzles.

Be aware that the low use rates, longer breakdown time, and mixing requirements of dry formulations pose challenges when preventing crop damage.

Adjuvant Use Is Growing. Adjuvants, such as surfactants and crop oil concentrates, are products that make foliar-applied herbicides work better. Many herbicide products are formulated with adjuvants to improve their effectiveness.

But adjuvants also may dislodge old herbicide residues that are embedded in tank walls or hoses, or they may help break down particles in screens. When they do, the adjuvants may cause an old, unwanted herbicide residue to be part of the spray liquid.

Tank-mixes of Herbicides Are Common. Glyphosate-tolerant crops simplified weed control by allowing one active ingredient to control a broad spectrum of weed species. As glyphosate-resistant weed populations have grown, it has become common to use multiple herbicides to control resistant weeds. It is important, of course, to learn which herbicides can be tank-mixed to control these resistant weeds. This practice also makes cleaning application equipment between sprays more important than ever.

Products Can Be Incompatible. Problems with product hiding or building up in application equipment can be traced back to how different products get along. If you do not mix agricultural chemicals in the correct order, they can settle out of solution or form a paste. If such things happen, there are going to be problems. It is important to pay attention to compatibility issues, especially when field mixing. If you're receiving premixed "hot loads" from a mixing facility, always tell the people at the facility if you observe potential compatibility issues.

In recent years, pre-emergence herbicide use has increased as a resistance management strategy. Using pre-emergence herbicides is reminiscent of the weed-and-feed days of the past when applicators used UAN as a carrier for preplant and pre-emergence herbicides. The differences are that the herbicide formulations today are different from those in past, and there is an increased interest in adding sulfur to these mixtures.

Incompatibility problems can arise when you use new herbicide formulations, mix products in the improper sequence, and add plant nutrients beyond just nitrogen, phosphorus, and potassium. These incompatible mixtures often leave difficult-to-remove residues inside spray equipment.

Application Timing Is More Crucial Than Ever. Optimum performance of post-emergence herbicides often depends on the size of the weeds at the time of the application. As weeds get larger, the herbicide's effectiveness is greatly reduced, which is why herbicide labels provide maximum weed size restrictions. When weather delays early-season herbicide applications, controlling weeds becomes more challenging. With little time to spare, applicators may gamble and only partially clean sprayers in order to save time and cover more acres.

Plumbing Is Complicated and Interconnected. Modern sprayers have many places where herbicide residues remain trapped, even after flushing hundreds or thousands of gallons of water through the system. Simply not opening one valve might leave quarts or gallons of herbicide in a hose. When the applicator opens the valve to that hose during the next application, the remaining residue will then

be mixed with the new product and pushed out the boom.

We know that cutting corners to save time can increase the chance for herbicide injury to crops. It's a false priority to think that herbicide application timing is more important than stopping to thoroughly clean possible herbicide residues.

[Read more at Purdue.edu.](#)

(CropLife October 11, 2018)

<https://www.croplife.com/crop-inputs/herbicides/8-reasons-why-unwanted-herbicide-residues-might-happen/>

ZIKA SPRAYING COULD WIPE OUT 13 PERCENT OF U.S. HONEYBEE COLONIES

Pesticides sprayed in the southern U.S. to stop the spread of the Zika virus could turn the nation's honeybees into collateral damage.

That is the warning issued by a study from the University of Exeter and the University of California, Berkeley published Friday in the Journal of Agricultural Research. The study found that 13 percent of U.S. honeybee keepers are at risk of losing their colonies from Zika spraying.

"A colony unexpectedly exposed to pesticide spraying for mosquitoes would almost certainly be wiped out," study lead author Lewis Bartlett of the University of Exeter's Center for Ecology and Conservation said in a university press release. "Beekeepers in the U.S. move their colonies around to support farmers, so a beekeeper with all their bees in one area at a given time could lose them all."

The study was prompted by 2016 reports that the spraying of an organophosphate pesticide to stop the spread of Zika in South Carolina killed millions of honeybees. At the time of the spraying, there had been 43 cases of Zika in the state, but none of them had been contracted from in-state mosquitoes.

Residents said they were given less than 10 hours notice of the spraying.

Researchers wanted to see if other honeybee colonies could be impacted by similar incidents, so they compared data on the density of honeybee colonies with areas at risk from Zika. They found that the places best for the bees also had favorable conditions for virus that causes brain defects in unborn children. Those regions include Florida, the Gulf Coast and potentially California's Central Valley.

While Florida has a system in place to control mosquitoes while protecting bees and other pollinators, other states are less prepared. This could be devastating both for bees and their keepers.

"At the start of this research we spoke to a beekeeper who was caught unawares and lost all her bees," Bartlett said.

"Beekeeping is a very traditional way of life in the US, with a lot of pride in families who have done it for generations, but many are struggling now.

"Given all the threats facing bees, even a small additional problem could become the straw that broke the camel's back.

"Many beekeepers live on the breadline, and if something like this changes things so beekeeping is no longer profitable, there will be huge knock-on effects on farming and food prices."

Bartlett said he understood concerns about the spread of Zika, but that policymakers should conduct research before they jump into preventative spraying.

While the study only looked at non-native honeybees kept to help farmers, the researchers said that honeybees are actually more resilient than other species, so Zika spraying could also harm other pollinators.

The study is also an example of the astounding ripple effects of climate change, which has been linked to the rapid spread of Zika. (EcoWatch,

US FOOD COMPANIES PRESSURED OVER GLYPHOSATE IN OAT-BASED FOODS

US environmentalists continue to pressure food companies over the presence of trace amounts of glyphosate herbicide in food products. They suggest that children are being exposed to potentially unsafe levels of the herbicide.

The Environmental Working Group (EWG) on October 24th released a second round of testing that found that glyphosate residues in oat-based cereals and other food products manufactured by General Mills and Quaker. None of the levels exceeded -- or came anywhere close to -- the US EPA's tolerance of 30 ppm, but the EWG contends that the federal standard fails to adequately protect children. "The fact that the level of glyphosate ... is legal, doesn't mean it is safe," according to the environmentalist group. "The EPA standard is outdated and not one based on the best and most current science."

The advocacy group says that the safety level should be 0.16 ppm and notes that its testing found that 26 of the 28 samples tested exceeded its own standard. The EWG testing included ten samples of different types of General Mills' Cheerios cereal and 18 samples of different Quaker brand products, including instant oatmeal, breakfast cereal and snack bars.

The residue levels detected ranged from 0.045 ppm to 2.84 ppm. The EWG sent letters to General Mills and to PepsiCo -- the parent company of Quaker -- asking the companies if they had tested for glyphosate in their products and to source oats from growers who do not use the herbicide.

The major use of glyphosate on oats is as a pre-harvest drying agent. The EPA does not allow US farmers to use glyphosate as a desiccant but other

major oat suppliers, notably Canada, do allow the herbicide to be used in that manner.

General Mills and Quaker hit back at the EWG, defending their products and criticising the environmentalist group for trying to needlessly worry the public. "The EWG report artificially creates a 'safe level' for glyphosate that is detached from those that have been established by responsible regulatory bodies in an effort to grab headlines, and has the potential to falsely alarm consumers, leading them to avoid consumption of many oat-based foods that are proven to be beneficial for the human diet," Quaker told Agrow. "We believe EWG's approach is invalid, and we stand behind our statement that the Quaker products tested by EWG are safe."

General Mills noted that the glyphosate residues found by EWG were "a tiny fraction" of what is allowed and considered safe. "Consumers are regularly bombarded with alarming headlines, but rarely have the time to weigh the information for themselves," the company told Agrow. "We feel this is important context that consumers should be aware of when considering this topic."

The EWG is banking on public pressure to help shift the debate and is urging its members to lobby General Mills, Pepsi and other food manufacturers to take steps to reduce the presence of glyphosate in their products.

The test results follow the EWG's earlier release of similar testing of oat-based foods as well as its petition filed with the EPA to reduce the federal food tolerance of glyphosate on oats to 0.1 ppm.

The petition says that the current tolerance level is inadequate in light of the 2015 declaration by the UN WHO's International Agency for Research on Cancer (IARC) that glyphosate is a "probable human carcinogen" and given the EPA's lack of data on actual dietary exposure to the herbicide.

The EPA is reviewing the safety of glyphosate as part of its registration review process. Last year, the Agency confirmed that it does not think that the herbicide poses a cancer risk, a conclusion backed by regulators in Europe, Canada and New Zealand,

and officials have repeatedly said that there is no need for the public to worry about trace amounts found in foods. None of 760 food samples tested by the Food and Drug Administration in 2016 for glyphosate had residues exceeding tolerances.

In addition to thousands of lawsuits claiming exposure to glyphosate has caused cancer, the IARC finding has also prompted a rush to the courthouse by consumers keen to take on food companies.

General Mills faces a newly filed class action alleging that it has failed to warn consumers that Cheerios contain glyphosate. The Sioux Honey Association is also facing lawsuits related to the presence of the herbicide in its products as are tea maker Bigelow, Ben & Jerry's, Quaker and Post. Sandwich maker Pret-A-Manger was also served with a lawsuit last month alleging that it is misleading consumers by labelling some of its products as "natural" despite testing that found traces of glyphosate. (Pesticide & Chemical Policy/AGROW, October 25, 2018)

REDUCED \$78M MONSANTO VERDICT ACCEPTED, SETTING STAGE FOR APPEAL

A California groundskeeper who won a landmark cancer trial against Roundup-maker Monsanto has agreed to accept \$78 million, a significant reduction from the jury's original award of \$289 million, the Associated Press reported.

A new trial would have taken place if plaintiff DeWayne "Lee" Johnson did not accept the lessened damages ordered by Judge Suzanne Bolanos of San Francisco's Superior Court of California last week.

On Oct. 26, Johnson's attorneys filed a notice of acceptance of the judge's decision.

"We appreciate and acknowledge this jury's verdict sending a strong message to deter Monsanto's conduct that caused Lee Johnson's non-Hodgkin

lymphoma," according to a statement from the lawyers. "However, to hopefully achieve a final resolution within his lifetime, Mr. Johnson has accepted the punitive damages reduction suggested by Judge Bolanos."

In August, a jury unanimously decided that Johnson had developed cancer from exposure to Monsanto's widely used glyphosate-based weedkillers, and awarded him \$39 million in compensatory and \$250 million in punitive damages.

Much of the plaintiff's case was based on the International Agency for Research on Cancer's classification that glyphosate is a "probable human carcinogen."

Johnson, who was diagnosed in 2014 with non-Hodgkin's lymphoma, is now near death according to his doctors, NPR reported.

Monsanto tried to toss out the jury's overall verdict, but Judge Bolanos affirmed the liability portion of the verdict while significantly slashing the punitive damages to match Johnson's \$39 million compensatory award.

Bayer, which purchased Monsanto this year and is facing more than 8,700 U.S. lawsuits over glyphosate, has defended the safety of the herbicides and vowed to appeal the case.

"The court's decision to reduce the punitive damage award by more than \$200 million is a step in the right direction," Bayer told AFP inquiry at the time of the judge's ruling.

"But we continue to believe that the liability verdict and damage awards are not supported by the evidence at trial or the law and plan to file an appeal with the California Court of Appeal."

Johnson's lawyers said they expected the company to fight back.

"We expect Monsanto to appeal, notwithstanding, so we will address all issues regarding the verdict and the amount of damages at the Court of Appeals," they stated. (EcoWatch, November 1,

2018) <https://www.ecowatch.com/monsanto-cancer-lawsuit-2617128096.html>

FLEA-BORNE TYPHUS SPREADING THROUGHOUT LOS ANGELES

As of Oct. 8, there have been 57 cases of flea-borne typhus in Los Angeles County, the LA Department of Public Health said.

On Thursday, the department announced that officials are investigating an outbreak of flea-borne typhus in downtown Los Angeles, and they are working with the city to implement environmental safety measures to help reduce the spread of the disease, [CNN reported](#).

Between July and September, the county identified nine cases of flea-borne typhus associated with downtown Los Angeles, and six of those cases were in people experiencing homelessness, according to the county.

"Although typhus normally occurs throughout LA County, we are observing several cases in the downtown Los Angeles area," Dr. Muntu Davis, the county's health officer, said in [Thursday's announcement](#). (PCT Online, October 9, 2018) <https://www.pctonline.com/article/flea-borne-typhus-los-angeles/>

US RESIDUE COMPLIANCE OVER 99% IN 2016

Some 99.1 % of domestic food samples tested by the US Food and Drug Administration (FDA) in fiscal 2016 (ended September 30th) complied with pesticide tolerances, according to a report issued this month. That compares with a 98.2% compliance rate in fiscal 2015 and 98.6% in fiscal 2014.

Domestic food testing in 2016 found that 52.9% of 2,670 samples contained no detectable residues. Some 46.2% of samples had residues within tolerance limits and 0.9% had illegal residues. Of the 25 violative samples, 21 contained residues for which no tolerance was established and four exceeded tolerance limits.

The FDA tested imported food from 98 countries. Of the 4,276 samples of imported food tested, 50.7% had no detectable residues, 39.5% had residues within tolerances and 9.8% had illegal residues. Among the 418 violative samples, 389 contained residues for which no tolerance was established and 64 had residues above tolerance limits.

The FDA found 215 of the 711 pesticides and industrial chemicals that could have been detected during routine monitoring. It used two new selective residue methods for the detection of glyphosate, glufosinate-ammonium and acid herbicides. None of the 760 samples analysed for glyphosate or glufosinate had residues exceeding tolerances. Two of 891 samples analysed for 30 acid herbicides contained violative residues.

The methods used for the FDA's total diet study found residues of 155 pesticides, most at very low levels. It analysed 1,062 samples in four market basket surveys. The most frequently detected pesticides were: the fungicide, boscalid (31.7%); the insecticide, imidacloprid (29.1%); the insecticide synergist, piperonyl butoxide (19.2%); the fungicide, azoxystrobin (18.8%); and the insecticide, bifenthrin (18.6%). (Pesticide & Chemical Policy/AGROW, October 11, 2018)

KOCHIA GAINS CROSS RESISTANCE TO DICAMBA, FLUROXYPYR IN WESTERN KANSAS

Kochia has now gained cross resistance in at least one state to both dicamba and fluroxypyr. [Kansas State University \(KSU\) weed scientists](#) said kochia showed this cross resistance in two areas on the west side of the state.

Dicamba-resistant kochia was first identified as early as the 1990s and glyphosate resistance also has become common in parts of the western Corn Belt. But this cross resistance, will complicate kochia management. Fluroxypyr was working “pretty well” in Kansas to control kochia in wheat, says Vipin Kumar, a Kansas State University weed scientists. Fluroxypyr is a Group 4 herbicide that is a common ingredient in many herbicide premixes in wheat and corn.

KSU researchers collected seed from plants in one problem area near Garden City and grew them out for testing, then applied field-use rates of dicamba and fluroxypyr. With dicamba, survivorship ranged from 78% to 100%. Where fluroxypyr was applied, survivorship ran 85% to 100%.

At this point, weed scientists can’t say to what extent this co-resistance will lead to a “fitness cost” among these populations. So far, kochia populations that show resistance to dicamba and fluroxypyr tend to produce fewer seeds and grow less aggressively.

If that’s the case, the resistant populations might eventually fade into the background, provided growers pull back on using dicamba and fluroxypyr for a period of time.

[Read more at KSU.edu.](#)

(CropLife, October 17, 2018)
<https://www.croplife.com/crop-inputs/herbicides/kochia-gains-cross-resistance-to-dicamba-fluroxypyr-in-western-kansas/>

OSU PESTICIDE EDUCATION TWITTER ACCOUNT

The OSU Pesticide Safety Education Program now has a twitter account as another option in providing you pesticide and applicator information plus regulatory updates.

This will be a platform to communicate information that occurs between the releases of the monthly newsletter.

Find us on Twitter at [@OkstatePestEd](#)

CEU Meetings

Date: November 5-7, 2018

Title: Oklahoma Ag Expo 2018

Location: Embassy Suites Norman

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

www.oklahomaag.com

CEU's:	Category(s):
8	1A
3	4
11	10

Date: November 8, 2018

Title: BWI Fall Seminar 2018 Hard Rock

Location: Hard Rock Catoosa OK

Contact: Tim Ruminer (405) 227-2985

www.bwicompanies.com

CEU's:	Category(s):
1	3A
1	6
3	7A
2	7B
1	7C
1	8
5	10
1	11A

Date: November 14, 2018

Title: Red River Specialties Rights of Way and Bare Ground Workshop

Location: Courtyard Marriott Norman OK

Contact: Joshua Britt (580) 235-3816

www.rrsi.com

CEU's:	Category(s):
6	6

Date: November 27-28, 2018

Title: 73rd Annual Oklahoma Turfgrass Conference and Trade Show

Location: Tulsa Tech Owasso Campus

Contact: Justin Moss (405) 744-5729

www.otrf.net

CEU's:	Category(s):
6	3A
6	10

Date: November 28, 2018

Title: Aborjet Tree Health Care Workshop OKC

Location: Edmond Community Center

Contact: Emmett Muennink (214) 799-6115

www.aborjet.com

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

Date: November 28-29, 2018

Title: NPMA Global Bed Bug Summit

Location: Sheraton Downtown Denver

Contact: Maria Mercado (703) 352-6762

CEU's:	Category(s):
13	7A
13	10

ODAFF Approved Online CEU Course Links

Date: November 29, 2018

Title: Aborjet Tree Health Care Workshop Tulsa

Location: LaFortune Community Center Tulsa

Contact: Emmett Muennink (214) 799-6115

www.aborjet.com

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

Date: December 5, 2018

Title: KPCA/MPMA Winter Conference

Location: Stoney Creek Hotel & Conference Center Independence MO

Contact: Spencer Duncan (785) 271-9220

www.kcpapestworld.com

CEU's:	Category(s):
7	7B

Date: January 23-24, 2019

Title: Red River Crops Conference

Location: Childress Event Center Childress TX

Contact: Gary Strickland (580) 477-7962

CEU's:	Category(s):
4	1A
4	10

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

<https://agceuonline.com/courses/state/37>

SW Farm Press Weed Resistance Mgmt in Cotton

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

Western Farm Press ABC's of MRLs

<https://agceuonline.com/courses/state/37>

Western Farm Press Biopesticides Effective Use in Pest Management Programs

<https://agceuonline.com/courses/state/37>

Western Farm Press Principles & Efficient Chemigation

<https://agceuonline.com/courses/state/37>

For more information and an updated list of CEU meetings, click on this link:

<http://www.kellysolutions.com/OK/applicators/courses/searchCourseTitle.asp>

ODAFF Test Information

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

November		December	
5	OKC	3	OKC
6	McAlester	4	Goodwell
8	Tulsa	6	Tulsa
19	OKC	10	OKC
29	Tulsa	12	Lawton
		13	Enid
		17	OKC
		20	Tulsa

- Altus: SW Research & Extension Center
16721 US HWY 283
- Ardmore: Carter County Extension Office
107 1st Ave Ardmore OK
- 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., Prairie Bldg
- McAlester: Kiamichi Tech Center on
Highway 270 W of HWY 69
- OKC: ODAFF Building 2800 N Lincoln
BLVD Oklahoma City OK (**New
Location**)
- Tulsa: NE Campus of Tulsa Community
College, (Apache & Harvard)
Large Auditorium

**Pesticide Safety
Education Program**