

PESTICIDE REPORTS

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



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NOVEMBER TEST HELP WORKSHOPS SCHEDULED

The Oklahoma State University Pesticide Safety Education Program (PSEP) has scheduled a test help workshops for November 29 in Tulsa and November 30 in Oklahoma City.

The Oklahoma City workshop will be at the Oklahoma County Extension Center at 2500 N.E. 63rd St. in Oklahoma City. The Tulsa workshop will be at the Tulsa County Extension Office at 4116 E 15th in Tulsa.

Registration cost is \$50 for each location and will include a copy of Applying Pesticides Correctly. This is the study manual for the core and service technician exams.

To register for this class please go to the Pesticide Safety Education Program (PSEP) website at <http://pested.okstate.edu/html/practical.htm> and click on the register online link. Class information and an agenda is also at that website. (OSU PSEP)

EPA TAKES ACTION TO PREVENT ECOLOGICAL RISKS FROM TWO HERBICIDES

The U.S. Environmental Protection Agency (EPA) is releasing the interim registration review decisions (IDs) for the pesticides aminopyralid and picloram, finalizing stronger measures to help prevent residues from contaminating compost and damaging non-target plants in sites where compost is applied. The Federal Insecticide, Fungicide and Rodenticide Act requires the agency to periodically re-evaluate pesticides through registration review to ensure that risk assessments and pesticide decisions reflect the best available science. The ID is one of the final stages of the registration review process and implements risk mitigation to address risks of concern.

Aminopyralid and picloram are pyridine herbicides used in both agricultural and non-agricultural settings. Agricultural use sites include pastures and rangeland. Non-agricultural use sites include turf, industrial areas, rights of ways, roadsides and other non-agricultural sites. Aminopyralid and picloram are used to control of a wide range of broadleaf and woody weed species in pasture and rangeland, particularly invasive species and help preserve conservation land due to their ability to target hard to control weeds without damaging native vegetation.

Pyridine herbicides such as aminopyralid and picloram have a history of reported compost incidents. Residues in contaminated compost can persist and damage non-target plants in residential gardens and other sites. Compost contamination occurs when treated materials, or manure from animals that consumed treated materials, are collected and recycled into compost. For many years, EPA has been engaging with stakeholders to identify effective measures to prevent damage to non-target plants where compost is applied. EPA is now requiring the following mitigation measures to reduce the potential for residues of these herbicides in compost:

- Prohibition of off-site use of treated plant materials and manure from grazing animals for compost and animal bedding/feed until 18

months after application to allow for residues to decline;

- Requiring that livestock be grazed on forage that haven't been treated for three days before moving to a site where manure is collected, or sensitive crops are grown;
- Requiring pasture applicators to notify the property owners/operators of the compost prohibition, and for the applicator to keep a record of this notification for two years;
- Updating compost pictogram on pesticide labels showing growers/operators how to manage treated materials; and,
- Requiring registrants to participate in a stewardship program and provide educational outreach for applicators, growers, land managers/operators, and others affected by herbicide residues in compost.

EPA will also continue to work with stakeholders to develop additional educational resources for land managers and others affected by herbicide residues in compost.

The IDs finalize enforceable mitigation measures to address spray drift risks of concern, such as a maximum wind speed for applications, medium or coarse droplets, and mandatory spray release heights for ground and aerial applications.

[Additional information on the pyridine and pyrimidine herbicides and interim decisions are available on EPA's website.](https://www.epa.gov/pesticides/epa-takes-action-prevent-ecological-risks-two-herbicides) (EPA, October 22, 2021)
<https://www.epa.gov/pesticides/epa-takes-action-prevent-ecological-risks-two-herbicides>

EPA PROVIDES AN UPDATE ON PESTICIDE APPLICATOR CERTIFICATION PLAN APPROVALS

The U.S. Environmental Protection Agency (EPA) is providing an update on efforts to finalize review of submitted state, territory, tribal and federal agency

certification programs for applicators of restricted use pesticides (RUPs). Requiring specific training to be applied, RUPs are not available for purchase or use by the general public. The 2017 Certification of Pesticide Applicators final rule had set stronger standards for people who apply RUPs and required that states, territories, tribes and federal agencies with existing certification plans submit proposed modifications by March 4, 2020 to comply with the updated federal standards. As specified in the rule, existing certification plans remain in effect until EPA completes its reviews and approves the proposed plan modifications, or until those plans otherwise expire on March 4, 2022, whichever is earlier.

In cooperation with certification program administrators, EPA has completed 28 reviews of the 63 submitted plans from states, territories, and tribes. EPA acknowledges the challenges certification program administrators face to bring the existing plans into compliance within the timeframes specified in the 2017 rule. Due to the impact of the COVID-19 public health emergency and the need for careful review of program-specific issues and questions, EPA is in the process of developing a rule that would extend the date by which plans must be approved and ensure existing plans can remain in place during this time-limited extension. Prior to October 1, 2021, EPA had been unable to take any action to revise the certification rule due to a prohibition of such in the Pesticide Registration Improvement Act of 2018 (PRIA 4). Further, litigation over attempted delays to the effective date of the January 4, 2017, final rule led some certifying authorities to postpone work on revising their certification plans

The anticipated extension would allow RUP applicators to continue to obtain the training and certifications they need to use RUPs under the existing certification plans, preventing the economic and public health consequences of widespread disruption of RUP use.

EPA will keep close contact with states, territories, tribes and other federal agencies who have a role in implementing the certification programs to provide support and guidance in meeting the regulatory deadline. EPA will also communicate any changes as soon as more information is available. (EPA, October 21, 2021)

<https://www.epa.gov/pesticides/epa-provides-update-pesticide-applicator-certification-plan-approvals>

UF RESEARCHERS EXAMINE HOW MUCH BAIT IT TAKES TO ELIMINATE A SUBTERRANEAN TERMITE COLONY

A team of students from the University of Florida Institute of Food and Agricultural Sciences (UF/IFAS) determined that less is more when it comes to just how many members of a subterranean termite colony must consume a chemical known as a chitin synthesis inhibitor (CSI) before the colony is eliminated.

The study, published in the *Journal of Pest Science*, takes a closer look at how much bait it takes to eliminate a subterranean colony.

As a prominent industry standard used in bait systems, CSI baits were first commercially used in the mid-1990s. Bait systems work as slow-acting agents. Current commercial formulations can provide a cost-effective and sustainable solution against potential damage from subterranean termites.

“If termites feed on the bait, it can lead to colony elimination in a few months, as University of Florida researchers have demonstrated in the past three decades through dozens of keystone studies,” said Thomas Chouvenec, an assistant professor of urban entomology at the UF/IFAS Fort Lauderdale Research and Education Center (REC).

“One of the remaining questions we had was, how many termites feeding on the bait does it take to reach colony elimination?” said Johnalyn Gordon, who recently graduated from UF/IFAS with a master’s degree.

“From a previous study in our lab, we knew that it only takes a day of termites feeding on bait to reach a colony-wide lethal dose, but how many termites within the colony need to actively feed on the bait remained unclear,” added Joseph Velenovsky, a doctoral candidate at UF/IFAS Fort Lauderdale REC.

Both students, under the supervision of Chouvinc, worked with 1.68 million termites at the Fort Lauderdale REC to answer this question.

“They used 27 large colonies of termites that the team spent four years rearing in the lab, with approximately 62,500 termites in each of them,” explained Chouvinc.

“It was quite a task to accomplish to show that food sharing behaviors of the bait were happening at the termite colony level, from just a fraction of foragers,” Chouvinc said.

The efforts of the graduate student duo paid off. They were able to determine that it takes less than 5% of the entire termite population of a colony feeding on a bait station for a short duration to reach colony elimination.

More critically, they demonstrated that it only takes 77 milligrams of a termite-specific pesticide to eliminate one million termites, confirming that CSI termite baits remain the most environmentally-friendly termite control technology available.

“It was remarkable to observe that only a small portion of foragers feeding on bait was sufficient to kill the colonies,” Velenovsky said.

“Even more remarkable, if a small number of workers feed on a tiny amount of bait for just a few days, the colony has already reached a ‘point of no return’ and is doomed to be eliminated within 90 days,” explained Gordon.

The study concluded that even if subterranean termites can be seen in baits stations for up to three months, the colony is technically already in the process of dying within the first week, even after a small number of termites feed on it.

”If the termites feed on the bait, they are already dead, but they don’t know it yet,” concluded Gordon.

(PCT Online October 29, 2021)
<https://www.pctonline.com/article/uf-termite-research-bait-elimination-study/>

AG PUSHES BACK ON CHLORPYRIFOS BAN

More than 80 agricultural groups are asking EPA to delay any attempt to revoke the use of the insecticide chlorpyrifos as agricultural groups criticized EPA's move to ban the pesticide for use on food and feed crops.

Laying out a formal objection sent Tuesday to EPA, a coalition of "growers, retailers, co-ops, applicators, refiners, crop consultants, and other agricultural stakeholders" told EPA the agency should stay, or delay, then eventually rescind the rule that revokes the use of chlorpyrifos on food and feed crops. The agricultural groups stated they believe the agency's decision to revoke all tolerance levels for chlorpyrifos "is inconsistent with federal statute, the agency's own record on chlorpyrifos, and sound, science-based and risk-based regulatory practices."

The force and the extent of the coalition's letter is likely to be used to help make the case for litigation against the rule, especially if EPA does not move to halt the rule or rescind it. As of now, EPA's final rule goes into effect on Oct. 29, and the food residue tolerance levels of chlorpyrifos would be formally revoked on Feb. 28, 2022, making the herbicide illegal to use on food or feed crops.

Chlorpyrifos is an organophosphate insecticide better known to farmers and pesticide applicators by various brand names such as Lorsban and Vulcan. While it was once more widely used, Corteva Agriscience had already voluntarily stopped production of Lorsban in February 2020 because of low demand for the product.

EPA's rule makes it illegal to use chlorpyrifos on food or feed crops. EPA also will review the use of chlorpyrifos for non-food uses, such as mosquito control, next year. The agency's decision came after a Ninth Circuit Court of Appeals ruling ordered EPA to issue a rule on safe chlorpyrifos levels. EPA stated that, based on available data, the agency was unable to conclude that risk of aggregate exposure to the pesticide meets the safety standards of the Food, Drug and Cosmetic Act, leading EPA to revoke all tolerance levels for chlorpyrifos.

In their letter, agricultural groups stated the pesticide "holds a unique and significant value for many agricultural producers." The pesticide is used on numerous crops to protect them from pest damage, with the greatest use on soybean acres against soybean aphids. The agricultural groups called on EPA to delay implementation of the rule until the agency can respond to objections from the industry.

Agricultural groups raised concerns over how FDA would handle any food with a long shelf life after February 2022 if traces of chlorpyrifos are found on them. The products could end up being destroyed for having residues. "This will potentially result in millions of dollars in additional food waste losses and further irreparable harm to agricultural supply chains," the letter stated.

There is also a lack of clarity about the continued use of existing stocks that will be effectively prohibited. The agricultural groups noted there was no clarity on what to do with potentially "millions of gallons" of chemicals in storage.

The agricultural groups also objected to EPA labeling the rule as "not economically significant" for regulatory action before the White House Office of Management and Budget. That designation changes how OMB treats the rule. Agricultural groups stated there are scenarios where crops could suffer more than \$100 million in losses, the threshold for a rule being considered economically significant. Agricultural groups suggest there are going to be "hundreds of millions of dollars" in lost agricultural benefits and "tens of millions of dollars in additional costs to supply chains and the environment."

In the letter, the agricultural coalition pointed to Michigan cherry producers that rely on chlorpyrifos to deal with American Plum Borers and Peachtree Borers. The pests can destroy trees by boring into their trunks.

"It is upsetting that EPA has revoked such an important chemistry without input from USDA or other stakeholders," said Mike Van Agtmael, a west Michigan cherry grower and chairman of the Cherry Marketing Institute. "Chlorpyrifos is critical to the Michigan and Wisconsin cherry industries, as there are no other

products that effectively control trunk borers. With more than 4 million cherry trees, Michigan grows 75% of the total U.S. production of tart cherries and roughly 20% of the total U.S. production of sweet cherries. Without this product, our growers risk losing a lot of trees, potentially jeopardizing their family farms."

The letter also cited the value of chlorpyrifos to sugarbeet growers in dealing with the sugarbeet root maggot. Without the insecticide, the maggots in some cases can bring down yields 45%.

For soybean growers, the pesticide is used to deal with two-spotted spider mites and soybean aphids. The pests can lower yields 60% if left unchecked, the coalition cited in its letter.

"Chlorpyrifos is a vital tool in the soybean grower's toolbox, one which EPA has itself said poses no food or environmental risk of concern," said Kevin Scott, a soy grower from Valley Springs, South Dakota, and American Soybean Association president. "Without it, many farmers may have to increase the amount of alternative pesticides they apply, as there are no one-to-one replacements for several pests chlorpyrifos helps control. EPA's action -- counterproductive to the agency's intended mission -- is undermining the ability of growers to be good environmental stewards."

American Farm Bureau President Zippy Duvall called the EPA action shortsighted, saying, "Taking care of the land and our natural resources is a top priority for farmers, and this revocation rule actually makes it harder for us to do that. EPA veered from its own scientific evidence in a decision that could be damaging to the land, to farmers and to our efforts to fight food insecurity."

Duvall's view is countered by United Farm Workers, which pushed for EPA to ban the pesticide. Groups such as the Pesticide Action Network pushed the litigation that forced EPA to hand down a decision on chlorpyrifos.

As DTN has noted, chlorpyrifos has a long history of battles over its safety. Dow Chemical was fined \$807,000 in 1995 for neglecting to inform EPA about reports of adverse human health effects going back two

decades. By 2002, products using chlorpyrifos were no longer sold for household use. In 2007, environmental groups petitioned EPA to ban it, citing research showing neurotoxic effects, including affecting infants. EPA initially moved to limit chlorpyrifos in 2015, but the agency then reversed course in 2017. The Ninth Circuit finally ordered EPA to create a rule that ensured safe use of the chemical or revoke its food-residue tolerances.

Agricultural groups' letter to EPA on chlorpyrifos: <https://soygrowers.com/...>

Five Things Farmers Need to Know About EPA's Ban on Chlorpyrifos: <https://www.dtnpf.com/...>

(Progressive Farmer, October 19, 2021)
<https://www.dtnpf.com/agriculture/web/ag/crops/article/2021/10/19/ag-groups-say-epa-chlorpyrifos-ban>

EPA STOPS SHORT OF PROMISING DICAMBA USE IN 2022

As reports of dicamba incidences continued in the 2021 growing season, Environmental Protection Agency Administrator Michael Regan says EPA is “extremely concerned” about reports of new dicamba incidences and indicated further changes for growers could be coming in the 2022 growing season if the analysis warrants adjustments.

“Growers are currently planning for the 2022 season, and we expect dicamba-tolerant soybeans and cotton to remain a significant part of the total soybean and cotton acres planted,” says Odessa Hines, external affairs manager for BASF Agricultural Solutions North America. Dicamba-tolerant acres totaled between 50 and 60 million acres for 2021 with additional acreage anticipated next year.

While speaking to the National Association of State Departments of Agriculture annual meeting on Sept. 20, Regan says since EPA issued in October 2020 new label restrictions for dicamba use, the 2021 growing season

still presented concerns. In October 2020, EPA rolled out a five-year registration for dicamba with additional restrictions on tank mixing of dicamba, downwind buffer requirements of 240 – 310 feet, prohibition of over-the-top on soybeans after June 30 and cotton after July 30, and simplification of the label and use directions for growers.

“We’re still receiving and analyzing new incident information and working very closely with state regulators to understand the conditions on the ground,” Regan told the attendees representing state agricultural department staff and leaders. “EPA is extremely concerned about these reports and is taking steps to better understand the nature and the severity of these incidents in order to assess the sufficiency of the mitigation in the 2020 decision, and, if necessary, take appropriate regulatory action.”

Dicamba is an herbicide that is widely used on agricultural crops, fallow land, pastures, turfgrass and rangeland to control emerged broadleaf weeds and provides some residual control of germinating weeds. Dicamba was first registered in the U.S. in 1967. In late 2016 and early 2017, the Agency conditionally registered three “over the top,” or OTT, dicamba products for use on post-emergent crops – after growth begins. These dicamba products were to be used on genetically modified dicamba-tolerant cotton and soybean plants in 34 states.

In June 2020, the U.S. Ninth Circuit Court of Appeals found that the EPA violated the law in its 2018 approval of dicamba by failing to properly consider the impacts on farmers and the environment. Farmers were left unable to use purchased products in the middle of the season and hope to not face a similar fate in 2022.

Kentucky Commissioner of Agriculture Ryan Quarles, who also serves as NASDA president, says he appreciates Regan taking comments and observations from the state departments of agriculture into consideration as the EPA continues its work on dicamba.

“I think we can all agree here at NASDA that we’d much rather have crop technology go through the proper regulatory protocols than be challenged in court,” Quarles says. “We need to make sure that we work with

you and not let juries decide what sort of crop technology for American farmers.”

Regan says on Sept. 9, 2021, EPA sent letters to the registrants of the products containing dicamba for post-emergent uses reiterating their legally required duty under the Federal Insecticide, Fungicide, and Rodenticide Act that at any time after the registration of a pesticide has additional factual information regarding adverse effects of the pesticide that the information should be submitted to EPA.

EPA also held a listening session with the Weed Science Society of America, various academics, state agricultural extensions agents and USDA. Another was held with the Association of American Pesticide Control Officials.

“We’re encouraging others with relevant information to continue to provide it to the agency so that we can make the best decisions possible, those that are informed by science, but that also will allow us to uphold the law and our statutory requirements,” Regan says.

(Southwest Farmpress September 12, 2021)
<https://www.farmprogress.com/regulatory/epa-steps-short-promising-dicamba-use-2022>

WHY ARMYWORMS INVADED IN 2021

October holds the promise of cold weather, first frosts and, for many, the blessed end of the march of the fall armyworms, a season-long invasion that plagued farmers, ranchers and homeowners across the country this year.

But don't let that welcome chill comfort you too long. This year's fall armyworm epidemic -- the worst in nearly five decades by some entomologists' estimates -- may be ending, but this level of armyworm infestation could happen more frequently in the years to come, warned Auburn

University Extension Entomologist Katelyn Kesheimer.

"We had the perfect storm of events that led to this snowballing effect that let them take over the entire country," Kesheimer said. "But if you look at what those storm components were -- a warm winter, lots of tropical storm systems and potential spray failures -- those are going to become more common moving forward and chances are that they will line up again before the next 50 years. We need to be prepared for that."

Growers would do well to invest in a sweep net, get up to speed on local moth monitoring networks and study the identification and management of this pest for next season, she said.

AN EARLY START FOR AN AGGRESSIVE PEST

The first red flags of the season were the armyworms spotted in the Midsouth as early as May, eating their way through pastures and hay fields. That's unusually early for the insect, which cannot tolerate cold winters. Normally it overwinters in South America or the southernmost regions of Texas and Florida, and adult moths must slowly make their way north each spring, Kesheimer explained.

"We had a warm winter across the South, so more of them survived and got off to an early start, so we started the year with higher numbers," she said. Armyworms are blessed with a rapid generation turnover -- they can lay eggs, hatch, feed, mature, mate and lay eggs again in a matter of weeks. "So, we can have five to seven generations in a single season, if the weather is right," Kesheimer said of Alabama growers.

A hot summer probably didn't help, added DTN Ag Meteorologist John Baranick. Starting in June, much of the U.S, especially the northern and

western regions, saw above-average temperatures, with the country clocking its hottest summer on record overall this year.

See more here: <https://www.dtnpf.com/...>

Like all insects, armyworms are cold-blooded, which means they are more active in warmer weather, Kesheimer noted. "They feed faster, they reproduce faster, and their life cycle shortens a little," she said.

Throw in an active tropical storm and hurricane season, and the stage was set for armyworms to wreak havoc across a broad geographic range.

"Since adults are migratory, they are flying north, but they also use winds and storms to move around," Kesheimer explained.

The country has seen 20 named storms, with seven hurricanes this season, above the yearly average, Baranick noted. "This year, we saw a bunch of tropical storms form early on," he added. One storm developed in May, with four making landfall throughout June. "Two -- Claudette and Elsa -- had long tracks through the U.S.," Baranick noted.

Things quieted in July, but August brought five storms to U.S. shores -- just as armyworms were reaching epidemic levels in the South. "That helped them expand their range and move farther and farther," Kesheimer said.

SURPRISE ATTACKS TAKE FARMERS OFF GUARD

Common to this year's armyworm damage were farmers who were stunned by the insect's rapid devastation, which can occur seemingly overnight.

"Growers can look at a field on Friday, and it looks fantastic, and by Sunday, it's completely gone," Kesheimer said.

Part of the problem is that armyworms start off incredibly small, with the initial instars measuring less than one sixteenth of an inch, Kesheimer explained. In the heat of the day, they also huddle near the thatch layer -- where grass meets the ground -- and only venture out to eat the top of plants when it's cooler. That's why entomologists recommend scouting early in the morning or just after dusk, preferably with a sweep net.

"Another good thing to do is go out in the morning when it's still wet and walk through a field, and if you get worms on your boots, think about treating that field," Kesheimer added.

While the caterpillars feed for up to two weeks, they do their worst, most damaging work rapidly in their last few days as caterpillars. "So, if you don't find them when they are still really tiny, by the time you get to them with a sprayer, they've already done the damage," Kesheimer said.

The speed at which the armyworm moves is one reason chemical applications weren't always very effective this year -- many growers were spraying when the caterpillars were too large to control, she said. But other problems contributed to spray failures, such as pyrethroid resistance in one strain of the pest, known as the corn strain. Another was persistent rain showers that washed the insecticide away.

"We're exploring the possibility of resistance in some of these spray failures, but weather was the bigger problem this year," Kesheimer said. "We were consistently getting sporadic rain showers on freshly sprayed fields."

That plentiful moisture also kept pastures and the various plant hosts of the armyworm in good, lush condition, providing plenty of food for multiple generations to thrive on.

And then -- to add to this perfect storm -- spotty shortages of chemicals, including insecticides, plagued many growers this season. "On top of trade issues and supply chain disruptions, there was so much demand," Kesheimer recalled. "People couldn't get insecticides, or they had to get more expensive ones. I even got asked what rate of dish soap would kill them!" (The answer is one tablespoon to a gallon but be careful -- too much can kill your crops, too!)

LOOKING FORWARD

The bad news is many of these factors are likely here to stay, Kesheimer warned. Climate change means an increased likelihood of warm winters and busy tropical storm seasons. As growers lean on a shrinking toolbox of chemical modes of action, resistance will continue to mount. Even the chemical supply issues are expected to persist for another year or two.

See more on that here: <https://www.dtnpf.com/...>

"We haven't seen anything like this for decades, but with everything going on, it won't be that long again before we see something like this again," Kesheimer said.

She recommends farmers buy sweep nets and find local moth monitoring systems they can follow each season. You can find guides on identifying fall armyworms from most agricultural universities, including this one from Texas A&M here: <https://agriflifeextension.tamu.edu/...>

"They have two important characteristics," Kesheimer explained. "The suture or seam on its head makes a very distinct inverted Y. And then on the tail end, there are four black dots that make a square. If you get bigger ones, you can see it."

When in doubt, send photos or samples to local Extension agents or your crop consultants, she advised.

"Look at your operation -- where are you susceptible?" she added. "Line up things you might need before spraying next year -- a supplier, scouting tools, consultants or Extension on speed dial. Have an IPM plan in place."

CEU Meetings

Please note that many of these meetings are now being done virtual. Please contact the meeting host directly if you have any questions.

Date: November 1-3, 2021

Title: 2021 Ag Expo

Location: Embassy Suites Norman OK

Contact: Tammy Miller (580)-233-9516

<https://www.oklahomaag.com/>

CEU's:	Category(s):
7	1A
1	4
1	7A
5	7C
12	10

Date: November 5, 2021

Title: Pesticide Applicator CEU's for Oklahoma Farm Bureau Annual Meeting

Location: Embassy Suites Norman, OK

Contact: Todd A Baughman (580) 224-0623

<https://www.okfarmbureau.org/programs/events/>

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

Date: November 9, 2021

Title: Grower CEU Meeting
Location: Caddo Kiowa Technology Center Fort Cobb OK
Contact: Keith Brownback (405) 643-3280

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

Date: November 17, 2021

Title: 76th OK Turfgrass Conference
Location: Grand Casino & Hotel, Shawnee OK
Contact: Dennis Martin (405) 744-5419
<https://www.otrf.net/events.html>

CEU's: Category(s):
1 1A
5 3A
1 5
1 6
5 10

Date: November 17, 2021

Title: Weed and Brush Control Workshop and Managing Endophyte Infected Tall Fescue
Location: Mayes County, Pryor OK
Contact: Mike Rose (918) 791-8593

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

Date: December 2, 2021

Title: McClain County OSU Extension Pesticide Labels/Data Sheets & Pesticide Formulation
Location: McClain County Purcell OK
Contact: Justin McDaniel (405) 527-2174

CEU's: Category(s):
2 1A
2 3A
2 6

Date: December 7, 2021

Title: McClain County OSU Extension Pesticide Transportation, Storage, Security of Pesticide & PPE/Emergency Response
Location: McClain County Purcell OK
Contact: Justin McDaniel (405) 527-2174

CEU's: Category(s):
2 1A
2 3A
2 6

Date: December 9, 2021

Title: McClain County OSU Extension Pesticide Application Equipment/Calibration & Adjuvants
Location: McClain County Purcell OK
Contact: Justin McDaniel (405) 527-2174

CEU's: Category(s):
TBD TBD

ODAFF Approved Online CEU Course Links

Online Pest Control Courses

<https://www.onlinepestcontrolcourses.com/>

PestED.com

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

Certified Training Institute

<https://www.certifiedtraininginstitute.com/>

WSU URBAN IPM AND PESTICIDE SAFETY EDUCATION PROGRAM

<https://pep.wsu.edu/rct/recertonline/>

CEU University

<http://www.ceuschool.org/>

Technical Learning College

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

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/>

Veseris

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

AG CEU Online

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

Target Specialty Products Online Training

<https://www.target-specialty.com/training/online-training>

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

Testing will be done at testing centers in multiple locations around the state by PSI Services LLC.

For more information and instructions, please go to <https://bit.ly/3sF4y0x>.

Reservation must be made in advance at www.psiexams.com/ or call 855-579-4643

PSI locations.

Oklahoma City 3800 N Classen Blvd, Ste C-20, Oklahoma City, OK 73118

Tulsa 2816 East 51st Street, Suite 101, Tulsa, OK 74105

McAlester 21 East Carl Albert Parkway (US Hwy 270), McAlester, Oklahoma 74501

Woodward 1915 Oklahoma Ave, Suite 3, Woodward, OK 73801

Lawton Great Plains Technology Center, 4500 West Lee Blvd Building 300- RM 308, Lawton, OK 73505

Enid Autry Technology Center, 1201 W. Willow Rd, Enid, OK 73703

Ponca City Pioneer Technology Center, 2101 N Ash, Ponca City, OK 74601

Norman Moore Norman Technology Center, 4701 12th Ave NW, Norman, Oklahoma, 73070

If you have questions on pesticide certification. Please email or call:

Kevin Shelton
405-744-1060 kevin.shelton@okstate.edu or

Charles Luper
405-744-5808 charles.luper@okstate.edu

**Pesticide Safety
Education Program**