

# PESTICIDE REPORTS

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



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## 2025 TEST HELP WORKSHOPS

The Oklahoma State University Pesticide Safety Education Program (PSEP) has will be holding test help workshops January 30 in Oklahoma City and February 5 in Tulsa.

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

Registration cost is \$50 before January 28 for Oklahoma City and \$65 after January 28. Registration cost is \$50 before February 3 for Tulsa and \$65 after February 3. Registration 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. Future 2025 workshop dates can be found on the website as well.  
(OSU PSEP)

# EPA RELEASES UPDATED MITIGATION PROPOSAL FOR ATRAZINE

Today, the U.S. Environmental Protection Agency (EPA) is proposing updated mitigation measures for the pesticide atrazine. This proposal contains mitigation measures to reduce exposure to non-target species and minimize impacts to federally endangered and threatened (listed) species and their designated critical habitats. The updated mitigation proposal also incorporates the revised level at which atrazine is expected to adversely affect aquatic plant communities, an expanded use of robust surface water monitoring data, as well as the runoff [mitigation menu](#) and point system from the [Final Herbicide Strategy](#).

EPA developed the mitigation menu to provide growers with the flexibility to use mitigations that are most appropriate for their field situations. The mitigation menu was recently updated to include additional options to achieve mitigation points and reduce runoff. This updated mitigation proposal for atrazine also includes EPA's response to public comments received on its 2022 proposal.

## Background

Atrazine is one of the most widely used herbicides in the United States. It is used to control annual broadleaf and grass weeds in a variety of agricultural crops, primarily corn, sorghum, and sugarcane. Atrazine products are also registered for numerous other uses including macadamia nuts, guava, fallow crop lands, and turfgrass.

The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) requires EPA to review each registered pesticide at least every 15 years to ensure that each pesticide can carry out its intended function(s) without creating unreasonable adverse effects to human health and the environment and to ensure that risk assessments and pesticide decisions reflect the best available science. If potential risks are identified as unreasonable, then EPA determines if additional mitigation measures can be implemented to reduce those risks.

As part of the atrazine ecological risk assessment, a concentration-equivalent level of concern or CE-LOC is established, which is the concentration of atrazine in water that is expected to adversely affect aquatic plant communities. In the 2016 atrazine ecological risk assessment, EPA determined that the scientifically derived CE-LOC was 3.4 µg/L, measured as a 60-day average. However, in September 2020, a less protective level for determining the need for mitigation at 15 µg/L was set that was based on a policy decision rather than a scientific one and raised questions about scientific integrity. Following subsequent litigation and partial remand of its 2020 Atrazine Interim Registration Review Decision, in 2022, EPA released a proposal for updated mitigation to address atrazine runoff and mitigate risks to aquatic plant communities, which was based on the CE-LOC of 3.4 µg/L. Since that time, the agency convened a meeting of the FIFRA Scientific Advisory Panel (SAP) to evaluate studies that were used to calculate the atrazine CE-LOC. Following the SAP, EPA reevaluated two additional relevant studies based on public comments and letters to the agency, which resulted in [recalculating the CE-LOC](#) for atrazine as [9.7 µg/L](#).

Since the release of the 2022 atrazine mitigation proposal, EPA also finalized its [Herbicide Strategy](#) to protect federally endangered and threatened (listed) species from potential impacts of herbicides. The final strategy was released in August 2024 and was applied during the development of the updated mitigation proposal for atrazine. The final strategy reflects many improvements, additional ways to comply and other increases in flexibility that were made by EPA based on the extensive comments from stakeholders and the public.

## Updated Atrazine Mitigation Proposal

EPA's approach is targeted to provide maximum flexibility (recognizing atrazine's high benefits) while addressing the need for mitigation. EPA has identified watersheds that exceed the revised CE-LOC of 9.7 µg/L through analysis of modeling data in combination with available water monitoring data. Under the updated proposal, EPA determined that a field located in a watershed with a predicted atrazine concentration above the CE-LOC of 9.7 µg/L but below 45.4 µg/L would

need to achieve three points of mitigation. For a field located in a watershed with a predicted concentration at or above 45.4 µg/L, EPA identified six points of mitigation to be necessary. The specific mitigation measures that may be used to achieve the required points are described in the Herbicide Strategy's [mitigation menu](#). Using the mitigation menu and point system also reduces the level of mitigation needed for applicators who have already implemented measures to reduce pesticide runoff from a field such as conservation tillage or grass waterways. Growers who already use those measures may not need any additional runoff measures.

In addition to the mitigation points, EPA is proposing several nationwide runoff reduction measures identified as necessary for all atrazine labels, including prohibiting application during rain or when soils are saturated or above field capacity, and annual application rate reductions.

Upon publication in the Federal Register, the Updated Mitigation Proposal for the Atrazine Interim Registration Review Decision, along with all atrazine registration review documents, will be available in docket [EPA-HQ-OPP-2013-0266](#) at [www.regulations.gov](http://www.regulations.gov) for public comment for 60 days. EPA will continue to keep the public updated as it evaluates and takes any actions related to atrazine pesticide use. For more information, view a [prepublication version of the Federal Register notice, the mitigation proposal and atrazine water concentration maps](#).

(EPA, December 3, 2024)

<https://www.epa.gov/pesticides/epa-releases-updated-mitigation-proposal-atrazine>

## EPA UPDATES PROCESS FOR DEVELOPING MAPS TO PROTECT ENDANGERED SPECIES

Today, the U.S. Environmental Protection Agency (EPA) is taking another step to reduce potential impacts to farmers from implementing endangered species protections while continuing to protect endangered species by [publishing a process](#) it will use to develop maps for protecting species designated as threatened or endangered (listed) by the U.S. Fish and Wildlife Service (FWS) and their designated critical habitats. These maps allow EPA to protect listed species from the use of pesticides through geographically specific mitigations. The process identifies areas where listed species are likely to be located and areas where they are not, which ensures that additional measures to protect listed species are only required in these areas.

As EPA assesses pesticide impacts on listed species, the agency may find that some mitigations are only needed to protect listed species. In those cases, EPA will only apply those mitigations where appropriate and necessary in geographically specific areas (referred to as Pesticide Use Limitation Areas or PULAs). PULAs are areas where pesticide exposures are likely to impact the continued existence of a listed species, which may include a reduction in survival or recovery of the species. They are intended to focus mitigations on areas where they are needed to protect populations of specific listed species from the use of pesticides.

When developing a PULA for a specific species, EPA starts by developing a “core map.” A core map identifies areas that are important to a species, which could be a refined range map. In cases where range maps are broad and include areas where a species is no longer thought to live, then core maps would only include areas within the species range where the species likely currently lives. The process released today is intended to identify such areas and exclude areas from EPA’s core map where the species is not likely to live. After developing a core map for a species, EPA develops a PULA that accounts for pesticide movement from a use site (e.g., spray drift and run-off) by adding adjacent areas to the core map.

Developing a core map or PULA does not alter FWS' range map.

EPA's goal is to develop core maps for all FWS listed species that may require protections with respect to pesticide exposures. The agency is focusing first on creating core maps for listed species identified in its [Vulnerable Species Action Plan \(VSAP\)](#), released in September 2024. This provides a framework for EPA to adopt early, meaningful protections to address potential impacts for listed species that the Agency identifies as particularly "vulnerable" to pesticides. EPA has developed core maps for several VSAP species, which can be found on the agency's website, and [will be developing core maps for the remaining VSAP](#) and other listed species and making them publicly available as they are completed. EPA has also prioritized a subset of listed species for core map development.

Additional information can be found in the [core map development process document](#). Visit EPA's website to learn more about how [EPA's pesticide program](#) is protecting endangered species.

[View the Core Maps Webpage](#)

(EPA, December 19, 2024)  
<https://www.epa.gov/pesticides/epa-updates-process-developing-maps-protect-endangered-species>

## **EPA ISSUES A FINAL CANCELLATION AND TERMINATION OF USES ORDER FOR SEVERAL CHLORPYRIFOS PRODUCTS**

The U.S. Environmental Protection Agency (EPA) is issuing a final order terminating all food uses, except for 11 crops in specified states, for six Drexel and three Loveland chlorpyrifos products. The Drexel products include Drexel Chlorpyrifos 15G (Reg. No. 19713-505), Drexel Chlorpyrifos 4E-AG (Reg. No. 19713-520), Drexel Chlorpyrifos 15GR (Reg. No. 19713-521),

Drexel Chlorpyrifos Technical (Reg. No. 19713-573), Drexel Chlorpyrifos 4E-AG2 (Reg. No. 19713-599), and Drexel Lambdafos Insecticide (Reg. No. 19713-671). The Loveland products include Warhawk (Reg. No. 34704-857), Warhawk Clearform (Reg. No. 34704-1077), and Match-Up Insecticide (Reg. No. 34704-1086). EPA is also cancelling three Drexel chlorpyrifos products: Drexel Chlorpyrifos Concentrate (Reg. No. 19713-518), Drexel CHLOR-PY-REX Chlorpyrifos Insecticide (Reg. No. 19713-527), and Drexel Chlorpyrifos 99% Technical (Reg. No. 19713-575).

Chlorpyrifos is an organophosphate insecticide that has been used for many food crops, including soybeans, fruit and nut trees, broccoli, cauliflower, and other row crops, as well as non-food uses. In a final rule issued in August 2021, EPA revoked all tolerances for chlorpyrifos, which establish an amount of chlorpyrifos that is allowed on food. This action essentially stopped the use of chlorpyrifos on all food and animal feed. EPA took that action in response to an April 2021 order from the U.S. Court of Appeals for the Ninth Circuit for the agency to issue—within 60 days—a final rule addressing chlorpyrifos tolerances, without taking public comment or engaging in "further fact-finding."

On November 2, 2023, the U.S. Court of Appeals for the Eighth Circuit vacated EPA's August 2021 rule revoking all tolerances. On February 5, 2024, EPA issued a Federal Register notice to amend the Code of Federal Regulations to reflect the court's reinstatement of those tolerances. At this time, all pre-August 2021 final rule chlorpyrifos tolerances have been reinstated and are currently in effect.

EPA published the Notice of Receipt of Requests from Drexel and Loveland to voluntarily cancel or terminate uses for these product registrations on July 15, 2024, which was open for public comment until August 14, 2024. The agency received one comment on this notice. After considering this comment, the agency is finalizing its decision to accept Drexel and Loveland's voluntary requests to cancel or terminate uses for these products. Any distribution, sale, or use of existing stocks of these products is permitted only in accordance with the terms of the final order and existing stocks provisions of the final order.

On December 10, 2024, EPA issued a proposed rule to revoke the tolerances associated with all but the 11 food and feed crop uses identified in the agency’s 2020 Proposed Interim Decision. Based on the available data, retaining only these 11 food uses is expected to decrease average annual pounds of chlorpyrifos applied in the U.S. by 70% as compared to historical usage.

The final order is available at docket ID [EPA-HQ-OPP-2022-0223](#) at [www.regulations.gov](http://www.regulations.gov). For more information, including existing stocks provisions, view the Federal Register Notice. The agency has also updated the [Frequently Asked Questions](#) about chlorpyrifos on its website.

(EPA, December 12, 2024)  
<https://www.epa.gov/pesticides/epa-issues-final-cancellation-and-termination-uses-order-several-chlorpyrifos-products-1>

## ESA COMPLIANCE: ADAPTING TO A NEW REGULATORY ENVIRONMENT

In April 2022, the U.S. EPA issued an historic document, “[Balancing Wildlife Protection and Responsible Pesticide Use: How EPA’s Pesticide Program Will Meet its Endangered Species Act \(ESA\) Obligations](#).”

Known as the “workplan,” it described how the agency would comply with the ESA before registering any new conventional pesticides, and for registration reviews, which occur on 15-year intervals, ensure that each existing active ingredient continues to meet the [Federal Insecticide, Fungicide, and Rodenticide Act](#) (FIFRA) standard of causing no unreasonable adverse effects.

For the agriculture industry, there’s particular interest in the EPA’s three separate strategies pertaining to herbicides, insecticides, and fungicides [the EPA has also published a Rodenticide Strategy].

The final [Herbicide Strategy](#) was released in August 2024.

According to the EPA, the goal of the Herbicide Strategy is “to develop a broad approach to address spray drift and runoff transport from treated fields to minimize exposure to listed 15 plants from herbicides…” and protect animal species that rely on specific plants.

The ESA will apply what it learns from the Herbicide Strategy to develop strategies for other pesticide groups, including insecticides (which would focus on listed invertebrates) and fungicides.

The public comment period on the draft Insecticide Strategy closed September 23, the draft Fungicide Strategy has yet to be released.

- **Download the full Special Report: [The ABCs of ESA](#)**

Simply put, the EPA’s workplan for complying with the ESA is one of the most profound regulatory changes the agriculture industry has faced in decades. From the manufacturers of agricultural chemicals to retailers and applicators, the potential impact cannot be overstated. However, it’s the grower community that could bear the brunt of the burden.

### Unifying the Industry

In response to the EPA’s workplan, agriculture industry associations, including the [Council of Producers and Distributors of Agrotechnology](#) (CPDA), [CropLife America](#) (CLA), and the [Agricultural Retailers Association](#) (ARA), are taking the lead to advocate on behalf of growers for practical mitigation options, stepping up collaboration across the industry, and exploring ways to help the EPA meet its goals while maintaining the industry’s voice in the process.

[Alex Dunn](#), President and CEO of CropLife America — whose members produce, formulate, and distribute virtually all organic and non-organic pesticide and biotechnology products used by U.S. farmers — says building partnerships is key.

A big part of that is collaborating with the distributors who interact directly with farmers to share information about the EPA's workplan and potential changes for growers. Crop advisors and ag extension also play a vital role in helping raise awareness and providing guidance.

Notwithstanding the sheer complexity and widespread impacts of the EPA's workplan, the rollout and response is slightly less challenging in terms of timing, considering that changes to product labels will be made as each new registration and registration review comes before the agency.

Ultimately, the label is the law, emphasizes Dunn, meaning that the Herbicide Strategy by itself does not impose endangered species requirements. The strategy elements have to be incorporated into label requirements for specific products.

Currently, very few products have explicit ESA requirements that have been incorporated onto the label.

Some growers may not have to do anything right now because the products they are using have not yet gone through the EPA's ESA review process. However, the industry could start seeing the first label changes for registration reviewed products toward the end of 2025, and for new active ingredients, even sooner.

### **Identifying Mitigation Strategies**

Following the EPA's release of its workplan in 2022, industry associations began working with the agency on ways to help EPA achieve its goals while simultaneously identifying and advising the most practical and effective ways to do it.

The CPDA members represent 80% of U.S. distribution for the approximately \$15 billion crop protection market, while approximately 80% of the inert ingredients used in agricultural production in the U.S. are provided by its members.

[Scott Rawlins](#), CPDA's Director of Governmental Relations, notes that the Herbicide Strategy is the most significant portion of the EPA's ESA strategy simply because herbicides represent the bulk of overall pesticide

use. A vast majority of farmers use herbicides, so most operations will face ESA-imposed restrictions.

Rawlins explains that for nearly two years, the CPDA has collected and submitted wind tunnel data on drift reduction adjuvants (DRAs) to EPA's Environmental Fate and Effects Division (EFED) for review and analysis.

Following a series of meetings with EFED, the EPA agreed to include DRAs in the Herbicide Strategy as an approved mitigation tool. DRAs will be the easiest, lowest cost option for growers to reduce or eliminate no-spray buffer zones, he says.

Indeed, this was the "biggest win we've gotten so far," says Eileen Bernard, Adjuvant Manager with [Nutrien Ag Solutions](#) and Chair of CPDA ESA, during CPDA's annual meeting in September 2024.

Bernard underscored that it was an industry-wide effort to compile over 2,000 lines of data that reinforced the argument that adjuvants are a good option for keeping materials on-target while reducing off-target movement.

There's still more work to be done on this front, however.

Currently, the EPA has only approved oil emulsion adjuvants as a mitigation tool. Bernard says the industry has submitted more data to support the inclusion of polyacrylamides and guar-based adjuvants, which she expects the agency will consider as a mitigation tool.

### **Adjuvants Positioned for Strong Growth**

With DRAs approved by the EPA as a mitigation tool for the Herbicide Strategy, Scott Addy, Vice President, Brand Technology for [Wilbur-Ellis](#) and CPDA Executive Board member, sees strong growth potential for the broader adjuvant sector, with growth estimates anywhere from 15% to 45%.

The efficacy of DRAs is so compelling that Addy and others support the routine use of DRAs as a standard industry practice with multiple benefits beyond compliance with the ESA.

Terry Abbott, Senior Product Portfolio Manager at [Adjuvants Unlimited](#), and CPDA Chairman, says the bottom line is adjuvants help pesticides become more efficacious when added to the spray tank. “The last thing we want is to have a weed that’s not completely dead, because weeds that are half alive can produce seeds for the next year, and potentially lead to herbicide resistance,” he says.

Even in a tight agricultural economy, or conversely, especially in a tight economy, Abbott says adjuvants should be top-of-mind. He notes that typically the pesticide is the most expensive part of the spray application.

“So as a grower, why would you shortchange yourself on the one thing — the adjuvant — that will make it a lot more effective?” he suggests.

The current economy is forcing growers to look at their operation more critically, including reevaluating all their operating costs, which include all their inputs they’ll apply to their crops, acknowledges Abbott.

Likewise, lenders are scrutinizing loan applications. If a grower goes to the bank and asks for an operating loan, the bank is going to look at the average yield, they’re going to use their algorithms and run their calculations, says Abbott.

Therefore, “The grower needs to make the absolute best decision about their farming operation,” and adjuvants are an important part of the equation.

Meanwhile, with the current economic environment, Abbott says some growers run the risk of thinking about the “curative versus the preventative” when it comes to their spray applications.

For example, it’s important that growers remain proactive with weed control. However, some growers get consumed with other costs, such as buying seed, paying for labor, making land payments and so on, and then find themselves behind the curve on weed control.

Abbott advises growers to start early and work with a technical advisor or agronomist to put a plan together and work the plan.

“This is the time to focus on what will increase your yields. The less you take to market the less money you get for your crop,” he says.

While the inclusion of DRAs as a mitigation tool in the Herbicide Strategy is expected to drive wider adoption of adjuvants, Abbott is also excited about the “new, novel, and unique” chemistries that are being developed in the adjuvant sector in response to growers’ evolving needs.

This combination bodes well for the industry’s efforts for ongoing and expanded inclusion of adjuvants in the EPA’s ESA workplan.

(CropLife, December 23, 2024)

<https://www.croplife.com/special-reports/the-abcs-of-esa/esa-compliance-adapting-to-a-new-regulatory-environment/>

## RESEARCHERS SHOWING HOW AI-EQUIPPED DRONES CAN HELP AGRICULTURAL PEST CONTROL

[Researchers](#) are now using artificial intelligence (AI) to find better ways to manage pests. The University of Modena and Reggio Emilia in Italy is showing how AI can transform farming. Lara Maistrello, an associate professor in the Department of Life Sciences at the University of Modena, led a team of researchers to find more time and energy-efficient solutions to pest management.

The researchers devised an automated flight plan for drones to capture high-resolution images of pear orchards from a height of 26 feet. Drones flying at this altitude were less disruptive to pest movements than human observers.

Interestingly, adult bugs reacted by freezing when drones approached, aiding in capturing clear images of the area. These images were then utilized to train AI models to identify pest infections.

## UT ARLINGTON STUDY: NEW BED BUG GENOME ANALYSIS MAY HELP PREVENT OUTBREAKS

Using this data, the trained models showed higher efficiency in detecting the stink bug, achieving an accuracy of 97 percent compared to models trained from the beginning.

The researchers proposed applying this method to integrated pest management strategies, offering accurate predictions that can adjust to evolving environmental and weather conditions.

In another research, scientists from the City University of New York (CUNY), the University of Melbourne, RMIT University, and the ARC Centre of Excellence for Transformative Meta-Optical Systems (TMOS) tackled the hurdles of curved optical lenses in environmental sensing.

They devised a flat imaging sensor made of the thin material vanadium dioxide. In addition to its small size and lightweight, this sensor can switch between precise infrared imaging and edge detection as needed.

Madhu Bhaskaran, a professor at RMIT University's School of Engineering in Australia, explained that as the filter's temperature changes, vanadium dioxide transforms from an insulating state to a metallic one. This shift causes the processed image to transition from a filtered outline to an unfiltered infrared image.

Crucially, the sensor system can carry out these tasks at the edge, eliminating the need for extensive data storage and energy-intensive processors. The flat-optic lenses produced with this technology are lightweight, small, and consume less power. They are ideal for replacing conventional lenses in sensing applications with drones and satellites.

(PCT, November 1, 2024)

<https://www.pctonline.com/news/revolutionizing-pest-control-with-ai-equipped-drones/>

A new University of Texas at Arlington [study published in the Journal of Heredity](#) shows that scientists now have a better genetic understanding of bed bugs. The research offers an updated genome analysis of the common bed bug *Cimex lectularius*, providing new insight for those working to prevent bed bug infestation, develop remediation strategies and track pesticide resistance.

“This new high-quality reference genome provides a valuable resource for enhancing scientific investigations into this medically and economically resurging pest,” said author Todd Castoe, professor of biology at UTA.

“We now have an important additional tool for studying patterns of human-associated evolution and adaption for this insect that has wreaked havoc on human populations since the beginning of civilization,” added co-author Yannick Francioli, a Ph.D. student in Dr. Castoe’s lab.

Although bed bugs have been mentioned in the written record for more than 3,000 years, the pest rose to prominence 1940s, when infestations plagued military bases during World War II. With the introduction of the powerful pesticide DDT (*dichlorodiphenyltrichloroethane*), the insect was thought to be eradicated in many industrialized nations.

In the 1990s, a combination of the elimination of DDT use due to health concerns, increased pesticide resistance among insects, and increased international travel helped fuel a resurgence of bed bug infestations. Bed bug outbreaks around the world now routinely make news headlines, such as the infestation in Paris hotels before the summer 2024 Olympic Games.

To better understand the genetics of the bedbug, Castoe and Francioli, along with researchers from Virginia Polytechnic Institute and State University, the University of Arkansas, the Dana-Farber Cancer Center, Harvard Medical School, and the Broad Institute of Massachusetts Institute of Technology and Harvard



University, obtained a sample specimen of the insect and flash froze it to allow its DNA to be extracted.

From that extraction, the team was able to create a chromosome-level reference genome for the insect using PacBio long-read and Omni-C proximity genetic sequencing tools. This approach, combined with sampling additional male and female individuals, allowed the team to map a contiguous bedbug genome with 15 chromosomes (13 autosomes and two sex chromosomes: X1 and X2), providing a comprehensive genetic map that enhances our understanding of the pest's biology, evolution and insecticide resistance.

Specifically, the identification of the sex chromosomes will help researchers understand the genetic basis of sex determination in bed bugs. This can be particularly useful for developing targeted pest control strategies that exploit sex-specific traits.

“The creation of a chromosome-level reference genome gives us a new and highly accurate contiguous map of the bedbug's genetic material,” said Castoe. “This new foundational resource will allow researchers to further understand the genetic basis of traits for the insect that cause issues such as insecticide resistance, which is crucial for developing more effective pest control strategies.”

Source: University of Texas at Arlington

*This research was supported by the National Science Foundation Division of Environmental Biology (DEB-1754394), startup funds from the University of Tulsa and Virginia Polytechnic Institute and State University, and the Joseph R. and Mary W. Wilson Urban Entomology Endowment. Additional funding came from a National Science Foundation Doctoral Dissertation Improvement Grant (DEB-1401747).*

(PCT, December 19, 2024)

<https://www.pctonline.com/news/ut-arlington-study-sequencing-bed-bug-genome-analysis-to-prevent-outbreaks/>

## CEU Meetings

Please note that some of these meetings are virtual using Zoom or Microsoft Teams. Please contact the meeting host directly if you have any questions.

### **Date: January 8, 2025**

Title: Carnegie Cotton Gin & Caddo Kiowa Technology Center CEU Meeting

Location: Carnegie Cotton Gin HWY 58

Contact: Heath Hull (405)-643-3280

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

### **Date: January 19-21, 2025**

Title: 2025 OKAAA Convention and Trade Show

Location: Embassy Suites Norman OK

Contact: Sandy Wells (405)-431-0381

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

CEU's:	Category(s):
pending	

### **Date: February 14, 2025**

Title: Central OK Cattle Conference

Location: Contact Payne County Extension for location

Contact: Jennifer Kay Patterson (918)-575-3497

CEU's:	Category(s):
1	1a
1	Private
1	10

### **Date: February 27, 2025**

Title: 2025 Turfgrass Professional Education Session

Location: Contact for location

Contact: Michael Kenty, Ph.D. (901)-409-6525

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

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

### Wood Destroying Organism Inspection Course

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

### CTN Educational Services Inc

[http://ctnedu.com/oklahoma\\_applicator\\_enroll.html](http://ctnedu.com/oklahoma_applicator_enroll.html)

### Pest Network

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

### 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>

### MarKev Training <https://www.markevtraining.com/>

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/](http://www.psiexams.com/) or call **855-579-4643**

### PSI locations.

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

Tulsa 2840 E. 51st Street, Brittany Square Office Park,  
Suite 215, 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

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

Kevin Shelton  
405-744-1060 [kevin.shelton@okstate.edu](mailto:kevin.shelton@okstate.edu) or

Charles Luper  
405-744-5808 [charles.luper@okstate.edu](mailto:charles.luper@okstate.edu)

**Pesticide Safety  
Education Program**