OKLAHOMA COOPERATIVE EXTENSION SERVICE

PESTICIDE REPORTS

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

October, 2023 CHEM

OCTOBER UNWANTED PESTICIDE DISPOSALS

Do not miss the Unwanted Pesticide Disposal Program collection dates for October 2023. They will occur October 17 in Walters, October 18 in Buffalo, and October 19 in Dewey.

The locations are the Cotton County Fair & Expo Center, Harper County Fairgrounds, and the Washington County Fairgrounds. The Disposals will run from 8 a.m. to 1 p.m. rain or shine at both locations.

There is no charge for this program. **Limit is 2,000 pounds per entity.** ONLY PESTICIDES will be taken at the sites (no fertilizer, paint, oil, etc)!
If you have any questions, contact Charles Luper (OSU) at 405-744-5808 or Ryan Williams (ODAFF) at 405-522-5993.

October 17 Cotton County Fair & Expo Center
924 West Missouri Avenue, Walters, OK

October 18 Harper County Fairgrounds
1230 N 190 Rd, Buffalo, OK

October 19 Washington County Fairgrounds
1109 N Delaware St. Dewey, OK

For more information please go to
https://extension.okstate.edu/programs/pesticide-

safety-education/unwanted-pesticide-disposal-program/index.html(OSU PSEP)

APPLICATORS RECERTIFICAION FEE

Applicators renewing by CEUs must still pay a $50 renewal fee.

ODAFF should have sent a letter to any applicators eligible to renew by CEUs with instructions on paying the fee online or mailing in the fee.

This must be done before December 31, 2023, for certification to be valid in January 2024. New certification cards will not be issued until this fee is paid.

(OSU PSEP October 1, 2023)

EPA RESOLVES LONGSTANDING LITIGATION TO PROTECT ENDANGERED SPECIES, ENSURE PESTICIDES THAT FEED AND FUEL AMERICA REMAIN AVAILABLE

This week, the U.S. Department of Justice, on behalf of the U.S. Environmental Protection Agency (EPA) resolved longstanding litigation covering over 1,000 pesticide products, allowing EPA to fulfill its obligations to protect endangered species while conducting reviews and approvals of pesticides in a safe and protective manner.

In 2011, the Center for Biological Diversity and Pesticide Action Network (Plaintiffs) filed a complaint in Federal Court in California against EPA alleging that it was violating the Endangered Species Act (ESA) when it registered or reevaluated the registration of 382 pesticide active ingredients, which was ultimately reduced to 35 active ingredients covering over 1,000 pesticide products containing one or more of these active ingredients. This became known as the "megasuit" because of the number of pesticides it covered. The settlement entered by the Court this week resolves all outstanding claims.

"This agreement is a win-win-win to protect endangered species, ensure the availability of pesticides needed to grow food across America, and save considerable time and taxpayer expenses required to further litigate this case," **said Assistant Administrator for EPA's Office of Chemical Safety and Pollution Prevention Michal Freedhoff**. "This settlement allows EPA adequate time to fulfill its obligations under the Endangered Species Act and adopt key elements from the Agency's 2022 ESA Workplan, which a wide range of stakeholders support."

In 2022, EPA issued its ESA Workplan, Balancing Wildlife Protection and Responsible Pesticide Use: How EPA's Pesticide Program Will Meet its Endangered Species Act Obligations, which describes how EPA will address the challenge of protecting ESA-listed species from pesticides. The ESA Workplan was developed with public listening sessions and public comment. This settlement is consistent with EPA's ongoing efforts to develop a multichemical, multispecies approach to meeting its ESA obligations under the workplan. EPA's traditional chemical-by-chemical, species-by-species approach to meeting these obligations has been slow and costly, with ESA work on each pesticide typically taking many years to complete. As a result, EPA has completed its ESA obligations for less than 5% of its actions, creating legal vulnerabilities, the potential for adverse impacts to listed species, and uncertainty for farmers and other pesticide users that use many pesticides. Resolving the remaining claims in this lawsuit and establishing a path forward under the settlement is a significant step to overcoming these challenges.

This agreement and the prior partial settlement include obligations for EPA, many of which are also described in the ESA Workplan. Those actions include:

- Development of mitigation measures for listed species that are particularly vulnerable to exposures from pesticides and determine how to apply these mitigations to future pesticide actions, as well as whether this Vulnerable Species Pilot should be expanded to more species. EPA met its first deadline (June 30, 2023) for this action by conducting public outreach on the mitigation measures identified for the first set of species;
- Development and implementation of an Herbicide Strategy (draft released for public comment), a Rodenticide Strategy, Insecticide Strategy, and Fungicide strategy (the latter three are still under development) which will identify mitigation measures for entire classes of pesticides to address their potential impacts to hundreds of ESA-listed species;
- Completion of the ESA work for eight organophosphates and four rodenticides;
- Hosting of a workshop for stakeholders to explore how to offset pesticide impacts on ESA-listed species in situations where eliminating or modifying pesticide use may not be feasible, and how EPA could incorporate those offsets into its process for registering or reregistering pesticides. Offsets could include restoring wetland habitat or funding breeding programs for affected species.

(EPA, September 14, 2023)
https://www.epa.gov/pesticides/epa-resolves-longstanding-litigation-protect-endangered-species-ensure-pesticides-feed

EPA HOSTING WEBINAR ON UNDERSTANDING BULLETINS LIVE! TWO

The U.S. Environmental Protection Agency (EPA) is holding a public webinar on Thursday November 9, 2023, to provide an overview of the Bulletins Live! Two system. The webinar will include information on the development of Bulletins and accessing Bulletins using the Bulletins Live! Two system.

During the webinar, EPA staff will:

- Describe how Bulletins relate to pesticide labeling.
- Explain the use of Bulletins Live! Two to determine if there are geographically specific mitigations for intended pesticide application areas.
- Demonstrate Bulletins Live! Two using malathion as an example.
- Address frequently asked questions.

EPA invites all interested stakeholders to attend. The November 9, 2023 meeting will be held via webinar from 2-3:00 p.m. EST. A meeting link and agenda will be sent to everyone who registers for the event.

Register here.

Background
When EPA registers a pesticide or reevaluates it in registration review, the Agency has a responsibility under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) to determine whether the pesticide presents unreasonable adverse effects on human health or the environment. EPA conducts human health and ecological risk assessments to determine what risks are posed by a pesticide and whether changes to the use or proposed use are necessary to protect the environment.

EPA also has a responsibility under the Endangered Species Act (ESA) to ensure that pesticide registrations do not jeopardize the continued existence of federally listed species or adversely modify their designated critical habitats. Federally listed species protections can take the form of nationwide mitigations on the general

pesticide product label or geographically specific mitigations located in Endangered Species Protection Bulletins (Bulletins), which are accessed through EPA's Bulletins Live! Two (BLT) website. When directed by a product label, pesticide applicators are required to visit the BLT website and follow any mitigations specified for the intended application area. When users are directed to follow them on a pesticide label, Bulletins are enforceable mitigations under FIFRA.

Register for the webinar
(EPA, September 27, 2023)
https://www.epa.gov/pesticides/epa-hosting-webinar-understanding-bulletins-live-two

EPA RESPONDS TO PETITION FOR FORMULATION AND MIXTURE TESTING

Today, the U.S. Environmental Protection Agency (EPA) is issuing a response to a 2017 citizen petition filed by the Center for Food Safety (CFS). The petitioner requested that the Agency amend Title 40 part 158 of the Code of Federal Regulations (40 CFR Part 158) to require additional toxicity testing for pesticide products and tank mixtures (when a user combines the pesticide product with other ingredients prior to application).

The petition asserted that EPA does not adequately assess the environmental impact from use of pesticide products or tank mixes as most of EPA's data requirements pertain to the pesticide's active ingredient.

EPA explains in its response to the petition that the Agency appropriately assesses, as part of its review, the impacts to human health and the environment, including potential impacts from pesticide products and tank mixes, and why the additional testing that the petition sought would not in general provide a better picture of the risks of a pesticide product. As a result, EPA is denying the request to amend the regulatory testing requirements.

EPA recognizes that additional information, beyond data required under 40 CFR part 158, may in some cases have value in evaluating potential effects to humans and the environment. EPA is reiterating the responsibility of the regulated community to report incidents involving pesticides, and any other information available concerning adverse effects from the use of a pesticide. EPA also has the authority to require additional data when the Agency reviews a pesticide application and determines that such data are necessary to evaluate risk. EPA also recognizes that the science for assessing potential effects to humans and the environment continues to evolve, and that new approach methodologies may provide additional tools (e.g., high-throughput in vitro assays) to evaluate potential effects from mixtures more efficiently.

To read EPA's full response to the petition visit EPA-HQ-OPP-2018-0262 at www.regulations.gov.
(EPA, September 29, 2023)
https://www.epa.gov/pesticides/epa-responds-petition-formulation-and-mixture-testing

EPA PROPOSES NEW AG HERBICIDE RULES

Use whatever idiom you want to describe it -- jump through hoops, clear the bar, check the boxes -- the cost of keeping tools in the herbicide toolbox is about to increase for U.S. farmers.

For nearly two years, the Environmental Protection Agency (EPA) has said it will no longer turn a blind eye toward the Endangered Species Act (ESA) and its legal obligation to ensure that pesticides don't jeopardize the continued existence of nearly 1,700 federally threatened or endangered species.

In July, EPA took what it believes is another step toward ESA compliance, releasing the "Draft Herbicide Strategy Framework." The 96-page proposal outlines how the agency intends to protect more than 900 listed species and their designated critical habitats (CH) from agricultural uses of conventional herbicides in the lower 48 states. The document is available for public comment until Oct. 22.

The draft herbicide strategy presents substantial change, requiring herbicide users to implement mitigation measures for potential impacts much earlier -- even before EPA or the U.S. Fish and Wildlife Service (USFWS) determines definitely that a herbicide poses a risk.

Here are answers to six questions about EPA's Draft Herbicide Strategy Framework. For a quick explanation of some of the terms that EPA uses, read this post on the DTN Production Blog: https://www.dtnpf.com/… .

1. Why is EPA doing this?

In recent years, EPA has faced many lawsuits by not adequately meeting its ESA obligations. While the agency settled longstanding litigation known as the "megasuit" on Sept. 12, this ongoing legal vulnerability has created uncertainty for farmers and other pesticide users about their continued ability to use many pesticides.

"EPA is not going to dig itself out of this dilemma using a traditional pesticide-by-pesticide, species-by-species approach to complying with the ESA," said Jake Li, deputy assistant administrator for pesticide programs within EPA's Office of Chemical Safety and Pollution Prevention, during a webinar held last month. "Instead, EPA needs to work a lot, lot faster and more efficiently. That means we need to get early mitigations in place to protect endangered species so that even if we haven't fully met our ESA obligations yet, we still have some protections in place in the meantime.

"That's the main reason we created the draft herbicide strategy," he continued. "It's really our first attempt to identify protections for hundreds of endangered species at once and to do so much earlier in the pesticide regulatory process using an approach that's much more efficient for EPA to implement. By doing all of those things, we think we can provide more certainty to growers about what mitigations they should expect in the future and how we intend to bring herbicides that they use into full compliance with the law."

2. How would it work?

EPA proposes a three-step process.

STEP 1: Conduct an analysis to determine which groups of plant species are expected to have the potential for population-level impacts from direct exposure to herbicides, and which groups of animals could be affected because they rely on listed plants for their diet or habitat. If at least one group of listed species is potentially affected, proceed to STEP 2.

STEP 2: Identify the type and level of mitigation measures needed to reduce herbicide exposure via spray drift and/or runoff or soil erosion. Mitigation measures would be identified specific to a herbicide's active ingredient, formulations, use site, application parameters and maximum use rates.

STEP 3: Determine where mitigation measures would be applied. Spray drift and runoff/erosion mitigation measures could be included on the general product label if the mitigations would apply everywhere the product is used. In some situations, mitigations would target only areas where groups of listed species occur. In those situations, EPA expects to use the Bulletins Live! Two (BLT) website to post geographically specific mitigations for listed species.

3. How many mitigation measures will I need to implement to comply with the product label?

Instead of requiring a certain number of mitigation measures, the EPA herbicide strategy outlines a system where herbicide users need to achieve a minimum number of "efficacy points." EPA assigned one to three points to each option in its menu of mitigation measures. The number of points required will vary based on the herbicide and the field location. As many as nine points may be required of some products if the use occurs within a pesticide use limitation area (PULA).

4. Will there be any exemptions from the runoff/erosion mitigation requirements?

EPA is considering potential exemptions to the mitigation menu requirements. If a field is more than 1,000 feet away from a terrestrial or aquatic habitat for listed species, it may be exempt from mitigation. Fields with subsurface drainage or tile drains may be exempt, but runoff from the entire field would need to be

controlled and directed into a retention pond or saturation zone.

Fields may also be exempt if they are managed with a site-specific runoff and/or erosion plan that has been implemented according to the recommendations of a recognized conservation program or appropriate conservation expert. EPA is still developing criteria for experts and conservation programs that would meet this exemption. With the draft herbicide strategy, the agency specifically requests feedback on the types of experts and programs that could be relied upon to ensure this exemption could be effective.

5. When will the EPA Herbicide Strategy go into effect?

In the "megasuit" legal settlement approved in federal court in California on Sept. 12, EPA committed to issuing a final Herbicide Strategy no later than May 30, 2024. Presently, the draft framework is available for public comment until Oct. 22.

Implementation of the final strategy would occur as existing herbicides come up for registration review, at which time mitigation would be applied. EPA revised its registration review schedule to account for the timing of the final strategy. At present, herbicides including atrazine, dicamba and 2,4-D are all scheduled for Proposed Interim Decisions in 2024. New herbicide active ingredients would incorporate the herbicide strategy from the outset of the registration process.

It should be noted the agency extended the comment period by 30 days after receiving more than two dozen comments requesting 60- to 90-day extensions from various national and state commodity organizations, product registrants and other agriculture-related groups. This includes the American Farm Bureau Federation, the National Association of State Departments of Agriculture, the American Soybean Association, the National Corn Growers Association, the Agricultural Retailers Association, CropLife America, BASF, Bayer and Syngenta.

6. What about other pesticide categories beyond herbicides?

The same Sept. 12 court-approved agreement also outlined deadlines for rodenticides and insecticides.

EPA expects to issue a draft Rodenticide Biological Evaluation, which will assess the effects on all listed species, in November 2023. The final evaluation is expected no later than Nov. 12, 2024. At that time, should it be determined rodenticides do affect listed species or their critical habitats, EPA will initiate consultation with the U.S. Fish and Wildlife Service and the rodenticide registrants to discuss possible mitigation options.

While a specific date was not given for issuing a draft Insecticide Strategy, EPA agreed to use its best efforts to issue a final Insecticide Strategy by no later than March 31, 2025.

No deadlines were set for the completion of a final Fungicide Strategy, but the determination of such a deadline is expected to take place no later than Aug. 31, 2024.

The EPA Draft Herbicide Strategy Framework and its supporting documents can be found here: https://www.regulations.gov/….

To submit a public comment, go here: https://www.regulations.gov/….

(Progressive Farmer, September 19, 2023)
https://www.dtnpf.com/agriculture/web/ag/crops/article/2023/09/18/qa-six-pack-epa-draft-herbicide

NO MOVEMENT ON PESTICIDE PREEMPTION AS PASSAGE OF 2023 FARM BILL DELAYED

Passage of the 2023 Farm Bill, which was expected to occur prior to Sept. 30, when the 2018 Farm Bill expired, has been delayed.

According to Politico, leaders in both the House and Senate say their new goal is to pass legislation by the

end of the year, when the bulk of agriculture programs expire.

The farm bill sets both policy and funding levels for food assistance, commodity support, crop insurance and conservation programs and must be rewritten every five years. The 2023 bill is expected to be in excess of $1 trillion.

Included in the 2023 bill is language to codify the role of state lead agencies as co-regulators of pesticides alongside the U.S. Environmental Protection Age. As previously reported by PCT, NPMA and others have long argued that pest control oversight is best handled jointly by each state's lead agency and the U.S Environmental Protection Agency (EPA). NPMA and its members have been working hard to encourage their congressional representatives to include preemption in the 2023 Farm Bill.

The farm bill typically receives bi-partisan support, but as reported by Politico, Senate negotiations "are unraveling as Republicans and Democrats spar over climate change and other big-ticket items."

(PCT Online, October 2, 2023)
https://www.pctonline.com/news/farm-bill-passage-delated-pesticide-preemption/

SCIENTISTS SPICE UP THEIR MOSQUITO WEAPONRY WITH MUSTARD

Scientists with the Agricultural Research Service (ARS) have shown that seed meal from plants in the mustard family can kill mosquito larvae, which start their lives in stagnant water before emerging into winged adults that take to the air in search of a blood meal.

The findings, recently published in the journal Scientific Reports, open the door to a biobased-approach to controlling the biting insect pests. Adult female mosquitoes feed on the blood of people and other animal hosts to produce eggs.

But more than just an itchy nuisance, the pest's bite can also transmit debilitating diseases.

At the ARS National Center for Agricultural Utilization Research in Peoria, Illinois, a team of scientists has set their sights on the discovery and development of environmentally friendly approaches for controlling mosquitoes at the habitat level and for individual consumer applications.

On a habitat basis, they're focusing on products derived from plants and other natural sources that may offer an ecologically friendly way to target mosquito larvae, the pest's most vulnerable life stage.

Some consumers may be hesitant to apply synthetic insecticide products, so alternative compounds that naturally repel or kill mosquitoes are also being examined. This research push also addresses another concern: preventing the onset of mosquito resistance to synthetic insecticide ingredients, noted Lina Flor-Weiler, an entomologist with the ARS center's Crop Bio-protection Research Unit.

Together with ARS co-authors Robert Behle, Mark Berhow, Susan McCormick, Steven Vaughn, Ephantus Muturi and William Hay, Weiler is the first to report the potential of mustard seed meal to kill mosquito larvae, which feed on bits of organic matter and microorganisms in shallow bodies of water such as ponds, swamps, kiddie pools, old tires, tree hollows and other aqueous sites.

As larvae, the pests are largely confined to a concentrated area after hatching from eggs deposited there by adult female mosquitoes—a scenario that makes for an ideal pre-emptive strike against the pests before they can mature, mate and bite people, birds and other animals to start the whole miserable cycle over again.

Sometimes, the environmental sensitivity of these areas or the presence of non-target organisms warrant a non-chemical solution to control mosquito larvae, such as with formulations that inhibit their growth, suffocate them or infect them with specialized bacteria.

In studies begun in 2022, the researchers examined the larval-killing potential of isothiocyanates, a group of

plant defense chemicals that are released when mustard seed meals are soaked in water. “The mustard plant stores inactive defense compounds (glucosinolates) in the seed that can be converted into biologically active isothiocyanates by enzymes called myrosinases,” explained Hay, an ARS plant physiologist. Prior research by other groups has shown that isothiocyanates can kill insect pests and soilborne parasites and pathogens, including root-damaging nematodes and disease-causing fungi, he added.

However, there was little in the existing scientific literature about the potency of these compounds against medically important insect disease vectors like mosquitoes, noted Weiler.

To learn more, the researchers prepared seed meal from four types of mustard family plants (brown mustard, pennycress, garden cress and white mustard) and added varying concentrations of them to small beakers of water containing larvae of Aedes aegypti mosquitoes, which can also transmit dengue, yellow fever, Zika and other diseases. The researchers also exposed larvae in separate beakers to one of three types of isothiocyanates extracted from the meals. In all trials, they monitored the effects on the larvae at 24 and 72 hours and documented the highest isothiocyanate concentrations needed to kill at least 50 percent of the immature insects.

Of the four seed meal types, garden cress proved the most lethal, killing more than 95 percent of mosquito larvae after only 24 hours and 100 percent in less than 48 hours. All seed meals were toxic to the larvae, except for a pennycress treatment that had been heated. This was intentionally done to deactivate myrosinase enzymes (which are necessary for the production of isothiocyanate) and confirm that their absence in the seed meal allowed the larvae to survive.

More studies are planned, the researchers said, but the early evidence thus far points to a promising bio-based alternative to synthetic insecticides that can be derived from an inexpensive agricultural byproduct of processing mustard seed into oil and spices.

(PCT, September 6, 2023)
https://www.pctonline.com/news/scientists-spice-up-mosquito-weaponry-mustard/

NC RESEARCH SHOWS SEE & SPRAY EFFECTIVE AT TARGETING WEEDS

Wes Everman has high hopes for John Deere’s See & Spray as another tool of precision agriculture to control weeds. The North Carolina State University Extension weed specialist believes this new technology has a fit for many farmers.

Everman and his team have been researching John Deere See & Spray since 2022. At the CHROME Regional Ag Expo Aug. 23 at the Peanut Belt Research Station in Lewiston-Woodville, the technology was demonstrated and Everman answered questions from field day attendees.

The rig Everman and his colleagues are testing at N.C. State is not a commercial rig but a scaled down agronomy test machine or ATM. “Everything that is on the big sprayer is on this little guy. It’s all the same electronics, cameras, sensors, nozzles, everything,” Everman said at the field day demonstration of See & Spray.

“We’re evaluating this technology to see how it’s going to fit for us here in North Carolina. There are only five of these around the county at universities, so I feel very privileged to get to have one and have the opportunity to do this research for you guys,” Everman said.

Speaking at the CHROME Regional Ag Expo Aug. 23 at the Peanut Belt Research Station in Lewiston-Woodville, North Carolina State University Extension Weed Specialist Wes Everman said his team’s research shows that John Deere See & Spray technology does a good job targeting weeds. (Photo by John Hart)

Computer vision and machine learning

See & Spray targeted spray technology was designed by Blue River Technology, a wholly owned subsidiary of John Deere. Cameras and processors mounted on John Deere’s carbon-fiber truss-style boom utilize the combined power of computer vision and machine learning to detect weeds from crop plants, according to a John Deere news release.

See & Spray uses camera technology to detect green weeds as it moves through the field and can distinguish the weeds from cotton, corn, and soybean. Its cameras can also rapidly detect green plants within fallow ground and trigger an application to those plants.

Everman and his team are looking at several parameters in evaluating the technology. They are looking at all the pieces that go into using See & Spray, and how all these factors might affect efficacy. Everman said they are still analyzing the data, but so far, they like what they see.

"What I will say is it does a good job targeting weeds. We will top out at 8 mph with this rig. I know they are working to get it up to 15 mph or higher with the commercial rigs down the road," Everman said.

See & Spray has a number of different controls that can be used to refine spray applications. Everman said the cameras used in See & Spray will consistently see weeds, even the smallest specimens.

"We've even seen little quarter sized cotyledon weeds. It will identify them. Whether that sprayer sensitivity is set to spray or not spray, is a control that can be manipulated. The detection is quite good," Everman said. "So far it seems like it's going to fit what we are looking for as far as finding the weeds separate from the crop."

Blue River's evaluations

Everman said Blue River has done a great deal of internal work evaluating nozzles for See & Spray to see what nozzles will work best and maintain efficacy and spray integrity. He said this is important because as you are turning See & Spray on and off to target weeds, you don't have a continuous spray, so you want the droplets to maintain their integrity.

"They have identified appropriate nozzles for this system and adjusted the ways the nozzles are oriented. They are not necessarily straight up and down. They are angled for targeting, so based on how those nozzles are oriented, and how the trigger system works, they've identified optimal nozzles for different types of herbicides, whether it's contact or systemic," Everman explained.

In their ongoing research, Everman and his team are evaluating how See & Spray will fit in different cropping systems and different levels of weed infestation. He said the value in the system is that it can turn on and off when it detects weed to be sprayed.

He said a benefit of See & Spray is that it has a dual tank and dual boom system so farmers can use one boom with see and spray and the other boom for broadcast applications. He said this provides more flexibility in weed management.

"I think it has a good fit for us in cleaning up weeds, picking up patches, and fitting into a good system. Hopefully, we can find a way to integrate the two different boom systems or different herbicides to make it valuable on a number of acres," Everman said.

The CHROME Regional Ag Expo is a collaborative effort of North Carolina Cooperative Extension agents in the four counties of the Chowan, Roanoke, and Meherrin River areas: Bertie, Halifax, Hertford, and Northampton Counties. (FarmProgress September 5,2023) https://www.farmprogress.com/crop-protection/research-shows-see-spray-effective-at-targeting-weeds-

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: October 4-5, 2023
Title: OKVMA FALL Conference 2023
Location: Hard Rock Hotel & Casino Catoosa OK
Contact: Kiersten Riggs (918) 314-9032
https://okvma.com/conferences/

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

Date: October 5, 2023
Title: Multi-Crop Field Day at Schantz Family Farm
Location: Caddo County contact sponsor for directions
Contact: JOSH BUSHONG (580) 237-7677

CEU's:	Category(s):
3	1A
3	10
3	Private

Date: October 10, 2023
Title: Garvin County Pecan Production Tour
Location: Garvin County contact sponsor for directions
Contact: Becky L Carroll (405) 744-6139
https://extension.okstate.edu/county/garvin/

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

Date: October 10, 2023
Title: OSU ZOOM Meeting
Location: Virtual Please Contact Local County Extension Office or sponsor for instructions
Contact: Todd A Baughman (580) 224-0623

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

Date: October 12, 2023
Title: Native Pecan Field Day
Location: Contact sponsor for directions
Contact: Becky L Carroll (405) 744-6139

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

Date: October 19, 2023
Title: McClain County Pesticide Meeting
Location: Contact McClain County Office
Contact: Justin McDaniel (405) 527-2174
https://extension.okstate.edu/county/mcclain/

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

Date: October 24, 2023
Title: Lincoln County Ag Pesticide Meeting
Location: Contact Lincoln County Office
Contact: Cody Linker (405) 258-0560
https://extension.okstate.edu/county/lincoln/

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

Date: October 24-25, 2023
Title: Kansas Ag Aviation Association Convention
Location: Drury Plaza Hotel Broadview Wichita KS
Contact: Rhonda McCurry (316) 650-6857
https://www.ksagaviation.org/kaaa-annual-meeting-and-convention/

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

Date: October 26-27, 2023
Title: ONLA OK Grows Conference
Location: Stoney Creek Hotel & Conference Center Broken Arrow OK
Contact Summer Maser (450) 945-6737
https://www.oknla.org/oklahoma-grows-conference-trade-show

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

Date: November 2, 2023
Title: Target Oklahoma Fall Workshop 2023
Location: Reed Center Midwest City OK
Contact Jennifer Gonzalez (800) 352-3870
https://www.target-specialty.com/news-and-events/event-registration

CEU's:	Category(s):
3	3A
2	3B
2	3C
2	6
4	7A
3	7B
2	8
5	10

Date: November 6-8, 2023
Title: 2023 Oklahoma Ag Expo
Location: Embassy Suites Norman OK
Contact Tammy Ford-Miller (580) 233-9516
https://www.oklahomaag.com/oklahoma-ag-expo.html

CEU's:	Category(s):
1	A
6	1A
1	3A
1	4
1	5
1	6
3	7C
9	10
7	Private

Date: November 6-8, 2023
Title: Heritage PPG Large Virtual Academy
Location: Virtual
Contact Rachel Mohorn (828) 638-5798
https://web.cvent.com/event/d2a754c5-5dd1-491e-8f5f-c76315f78fe9/summary

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

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

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
Find us on Twitter at @OkstatePestEd

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

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