

# PESTICIDE REPORTS

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



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CHEM

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## JUNE TEST HELP WORKSHOPS

The Oklahoma State University Pesticide Safety Education Program (PSEP) has scheduled test help workshops for June 13 in Oklahoma City and June 15 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 June 12 for Oklahoma City and \$65 after June 12. Registration cost is \$50 before June 14 for Tulsa and \$65 after June 14. 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 2023 workshop dates are on the website as well. (OSU PSEP)

## **EPA ESTABLISHES FIRST PESTICIDE TOLERANCE FOR HEMP**

The U.S. Environmental Protection Agency (EPA) has established the first pesticide tolerance for hemp. This tolerance is for the pesticide ethalfluralin. After a robust human health risk assessment, on April 10th, EPA issued a final tolerance rule that established the maximum amount of ethalfluralin residues allowed to remain in or on hemp seed. Today, EPA accepted labels for this pesticide that now contain directions for use on hemp. Establishing a tolerance for residues of ethalfluralin on hemp and accepting updated pesticide labels provides farmers with an additional tool to control annual broadleaf and grassy weeds that grow in hemp fields.

EPA is responsible for regulating the pesticides used to protect crops grown for human food and animal feed and for setting limits on the amount of pesticides that may remain in or on foods marketed in the United States. These limits on pesticides left on foods are called "tolerances."

Under the Federal Food, Drug, and Cosmetic Act, any person can file a petition with EPA requesting that the agency establish tolerances for a pesticide's use on a crop.

The 2018 Farm Bill authorized the production of hemp, and removed hemp and hemp seeds from the Drug Enforcement Administration's schedule of Controlled Substances. The changes in the legal status of hemp led to increased interest in growing the crop and in pest control options for hemp growers. There are currently biopesticides already registered for use on hemp. However, those pesticides are tolerance exempt because the risk assessments EPA conducted demonstrated that the risks from aggregate exposure to pesticide residues under reasonably foreseeable circumstances would pose no harm to human health.

Ethalfluralin, a conventional pesticide, is an herbicide that already has tolerances for use on other crops such as peanuts, potatoes, and soybeans. In October 2020, EPA received a petition from Interregional Research Project No. 4 (IR-4) requesting tolerances be established for

residues of ethalfluralin in or on several crops, including hemp. IR-4 is a USDA-funded project that helps specialty crop growers address pest management concerns. As this is the first instance of establishing a food tolerance for hemp, EPA considered the agronomics of hemp production and developed science policies to guide assessment of potential human health exposure and risk from application of ethalfluralin on hemp. The final tolerance rule issued this week established tolerances for residues of ethalfluralin for hemp as well as other commodities that were part of the subject petition.

EPA's tolerance for residues of ethalfluralin in or on hemp seed is based on carefully considered scientific rationale using ethalfluralin residue field trial data from several other crops. This new use of ethalfluralin on hemp is not expected to pose any unreasonable risks to people or the environment.

To learn more, view the final rule and scientific analysis in docket EPA-HQ-OPP-2021-0130 at [www.regulations.gov](http://www.regulations.gov). (EPA, April 13, 2023) <https://www.epa.gov/pesticides/epa-establishes-first-pesticide-tolerance-hemp>

## **EPA PUBLISHES UPDATED REGISTRATION REVIEW SCHEDULE**

Today, the U.S. Environmental Protection Agency (EPA) is releasing an updated registration review schedule for the next three years to provide a roadmap and advance notice of actions for stakeholders. This update reflects the four-year extension for the registration review deadline provided for in the FY 2023 budget. The deadline for the completion of registration review final decisions is now October 1, 2026, for the pesticides registered before October 1, 2007.

This schedule update also reflects some of the broader policies that EPA is pursuing. For example, the registration review schedules for the rodenticides and many of the herbicides, insecticides, and fungicides are in-line with the Agency's Endangered Species Act

strategies for these pesticide types over the next four years. The schedule is designed to allow EPA to adopt consistent mitigation measures across the chemicals and to improve the efficiency of its registration review work. EPA affirms its plan to continue the review of remaining pesticide cases and issue decisions to protect people, endangered species, and the environment, while providing pesticide users with predictability about the legal status of pesticides in registration review.

In 2007, an amendment to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) formalized a requirement that EPA review each registered pesticide at least once every fifteen years to ensure that it can still be used without unreasonable adverse effect on human health or the environment. During the registration review process, EPA completes draft risk assessments, proposed interim decisions/proposed final decisions, and interim decisions/final decisions. Registration review decisions also require compliance with the Endangered Species Act. Throughout the registration review process, EPA makes its information, assessments and supporting material for each case available to the public through the case's docket at

When EPA identifies risks of concern to human health or the environment, it imposes pesticide label amendments designed to reduce risk. Mitigation measures can include the cancellation of uses or pesticide registrations, reduced application rates, spray drift restrictions, use of personal protective equipment, and advisory language. If EPA determines there are urgent human or environmental risks from pesticide exposures that require prompt attention, the Agency can take appropriate regulatory action, regardless of the registration review status of the pesticide.

By following the science and making evidence-based decisions that rely on the input of career scientists, EPA will continue to ensure that risk assessments and regulatory decisions reflect the best available public health and ecological science.

The original registration review deadline for the 726 pesticides registered before October 1, 2007, was October 1, 2022. While EPA has completed final or interim decisions for all but 144 of the 726 total pesticide cases, the Agency has been delayed in its

ability to issue many final decisions. This delay is due to the demands of focusing resources to respond swiftly to COVID-19 antimicrobial actions, delays in receiving data from registrants, a lack of resources to respond to ongoing and increasing litigation, and the scientific complexity associated with many of the pesticides yet to go through the registration review process. EPA also must comply with the Endangered Species Act obligations and complete cumulative risk assessments before its registration review work can be finalized.

In addition to the 726 cases registered before October 1, 2007, there are 63 cases registered after October 1, 2007, with a registration review deadline prior to October 1, 2026. To date, for these 789 cases, EPA has:

- Completed draft risk assessments for 90% of total number of cases.
- Completed proposed interim decisions or proposed final decisions for 85% of total number of cases.
- Issued interim decisions for 57% of total number of cases.
- Issued final decisions for 20% of total number of cases.
- Of the interim or final decisions, more than 15% of the total number of cases resulted in cancellations of some or all uses.

#### [Registration Review Cases OPP Update graphic \(png\)](#)

As the Agency works through the remaining priority registration review actions, it will continue to maintain an open and transparent process by accepting public comments at most stages of the registration review process. In addition, EPA will update the schedule generally on a quarterly basis going forward.

Visit [EPA's website](#) for more information on the [registration review process](#) and the [updated schedule of upcoming registration review actions](#).

(EPA, April 10, 2023)  
<https://www.epa.gov/pesticides/epa-publishes-updated-registration-review-schedule>

## **EPA REACHES AGREEMENT ON EARLY MITIGATION MEASURES INITIATIVE FOR AN ORGANOPHOSPHATE PESTICIDE**

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Visit EPA's website for more information on the registration review process and the updated schedule of upcoming registration review actions.

(EPA, April 27, 2023)

<https://www.epa.gov/pesticides/epa-reaches-agreement-early-mitigation-measures-initiative-organophosphate-pesticide>

## **EPA HEAD REGAN TELLS HOUSE AG COMMITTEE AGENCY PAYING PRICE FOR IGNORING ENDANGERED SPECIES ACT**

Farmers waiting for EPA approval of new pesticides and herbicides may not see such products making it to market anytime soon.

EPA Administrator Michael Regan said during a hearing on Wednesday before the House Committee on Agriculture that the agency finds itself having to dig out from under an avalanche of lawsuits when it comes to regulating pesticides and herbicides and is hampered by a lack of personnel to approve new crop protection products.

As a result of a variety of lawsuits, the EPA is undertaking an Endangered Species Act review of current pesticides and herbicides, and Regan told the committee the work will continue.

Regan also talked about how the agency is bogged down in the process required to bring new crop-protection products to market.

"But then there is this sort of lack of funding at EPA," he said. "We have so many new market entrants that are ready to hit the streets that could be tools for farmers, but we haven't gotten them through our review process because we have too few employees to do so. I think we can make sure we're applying the science correctly and don't artificially take products off the shelves. But then there are a lot of new products that farmers are ready to see and use that we need to get those out the door as well.

"As you are aware, multiple administrations have struggled with balancing the scientific and legal policy considerations that arise from both FIFRA (Federal Insecticide, Fungicide and Rodenticide Act) and ESA on numerous occasions."

During the past 20 years, federal courts have ruled the EPA has been out of compliance with the Endangered Species Act when registering pesticides, and the agency has faced an increasing number of lawsuits for failing to meet its obligations under the law.

Jake Li, deputy assistant administrator for pesticide programs within EPA's Office of Chemical Safety and Pollution Prevention, said during a webinar last November that more than 50 pesticide ingredients encompassing more than 1,000 products currently have court-enforceable deadlines to comply with the Endangered Species Act or are in pending litigation.

Chairman of the House Ag Committee Rep. Glenn Thompson, R-Penn., said that when it comes to crop protection products, EPA has not been considering the advice of USDA officials when making decisions about product registrations.

"The EPA has recently rejected or ignored recommendations from the office of pest management. Does EPA not value the input it receives from other federal agencies like USDA?" Thompson asked.

Regan answered, "We absolutely do. We value the input we receive from staff, and I value my personal and professional relationship with Secretary Tom Vilsack. So, we're working in very close coordination on a whole host of issues."

Thompson said because the EPA has "frequently ignored" input from USDA, last year, Congress passed legislation that requires the EPA to take USDA feedback into account when developing Endangered Species Act mitigation measures on ag chemicals.

"How do you plan on following this language to ensure that USDA feedback is actually implemented in your decisions and not just with Secretary Vilsack but, quite frankly, with the professionals that we have deployed within USDA, that your staff should be consulting with?" Thompson asked.

Regan responded, "Since I've been there for the past two years, whether it's in my front office or throughout the agency with careers, we're seeing constant engagement, constant meetings, co-hosting meetings with external stakeholders, to be sure that we're getting all of the information to make the decisions we make."

#### FOLLOWING SCIENCE OR COURTS?

Members of the committee questioned whether the EPA was following the science on Endangered Species Act reviews or simply acting under court orders.

"I believe if that had been done in the past, we wouldn't have 50 years of ignoring the ESA, and this administration wouldn't find itself in the position that is in," Regan said.

"Now we're all in this pressure cooker. I believe that our farmers should have every tool in the toolbox. And so, there's a couple things we can do. I think the first thing is making sure that we are all looking at the science and making sure that the science is correct. I also think that when we have situations like that, it's not about just

ripping it off the market. It's about making sure that our farmers have the education so that we can avoid the overspray and having millions of dollars of crops disrupted because some farmers need that pesticide."

In 2022, the EPA announced it was taking steps to meet Endangered Species Act obligations on current crop products before registering new products.

The agency published a work plan that establishes a long-term strategy in protecting listed species and to reduce legal vulnerabilities, Regan said, while providing "predictability to our farmers."

As part of the comprehensive plan, farmers could be required to adopt vegetative filter strips, cover cropping, contour terracing and other conservation measures to protect endangered species.

Rep. Kat Cammack, R-Fla., said she's concerned about added costs to farmers coming from the agency's response to Endangered Species Act litigation.

"These practices are very costly," she told Regan. "In fact, in the state of Florida of which I represent, this would impact producers from my home state more than any other state in the union. For example, it would cost \$1.2 million annually just to install just vegetative filter strips on 5,000 acres. There are hundreds of thousands of acres under production in my home state, so you can imagine the burden that our farmers and ranchers would bear in trying to comply with this particular work plan. How do you expect our growers to comply with these burdensome regulations while facing incredible input cost increases and not go broke in the process?"

Regan said the work plan is not a regulation, so having conversations between EPA and agriculture is important going forward.

"I think what we need to do is ensure that as a work plan, it has been developed so that we can all get on the same page, that we have the right people at the table for that we're conversing and using the same language and have an understanding of how costly this is going to be," Regan said.

"So, what I'd like to suggest is that I revisit this with my staff to be sure that we've got the right stakeholders at the table as we continue to talk through his work plan."

## COURT ACTIONS

At the end of March, the Center for Biological Diversity announced it would sue the U.S. Fish and Wildlife Service by the end of April if the agency does not respond to a 2019 petition to restrict pesticide use in critical habitats.

The EPA has conducted biological evaluations for chlorpyrifos, diazinon, malathion, carbaryl, methomyl, glyphosate, atrazine, simazine, imidacloprid, thiamethoxam, clothianidin and sulfoxaflor, finding the chemicals do harm some critical habitats.

EPA finalized a rule on Feb. 28, 2022, revoking the food tolerances for chlorpyrifos, effectively banning legal use of the insecticide among U.S. farmers. That rule was issued by the Biden EPA in August 2021 in response to an order from the U.S. Court of Appeals for the Ninth Circuit.

The EPA issued a new interim registration for the insecticide in December 2020 before the Ninth Circuit handed down its order in April 2021. That order led EPA to issue its food tolerance revocation.

In the December 2020 action by EPA, it found 11 high-benefit, low-risk crop uses for chlorpyrifos. All other chlorpyrifos registrants have since pulled their registrations.

Regan told the committee the court gave the agency no choice but to act quickly on chlorpyrifos.

"The court weighed in and said that they were fed up and frustrated with EPA's inaction," he said.

"So, they set a high bar and a timeline. That was really hard to meet. And so, I would argue that the difference between USDA and EPA on this instance isn't the science. It's high. We had to apply what the court required us to do. And they set a bar that was too high for us to meet in the time that they gave us using the science that we had. And so, we made the best decision

that we could make with the science that we have to comply with the mandate from the court, which that mandate from this court was much different for chlorpyrifos than it has been for any other pesticide we've seen."

## OTHER ISSUES

Members of the House Committee on Agriculture raised several issues with Regan, including the waters of the U.S. rule. Currently, courts have issued preliminary injunctions against the rule in 26 states.

Regan offered no new information about the WOTUS rule, only to reiterate the new rule codified a number of agriculture exemptions.

On E15, Regan said the EPA has started drafting a rule to allow permanent year-round sales in eight Midwest states that would take effect in 2024.

When asked about whether the Biden administration was set to issue an emergency waiver to allow E15 sales to continue this summer, Regan said, "I think that it's not necessarily waiting until the last minute, but I think if you look at prior administrations that have proactively issued those waivers or gone too quickly, the courts have stripped them down. So, we have some precedents that we have to watch out for. There are certain market conditions that must be present in order for EPA to utilize that waiver. And my staff is taking a constant look."

(Progressive Farmer, April 19, 2023)

<https://www.dtnpf.com/agriculture/web/ag/crops/article/2023/04/19/epa-head-regan-tells-house-ag-agency>

## **EPA'S INTERIM DECISION ON RODENTICIDES NOW EXPECTED IN 2024, NPMA REPORTS**

In November 2022, the U.S. Environmental Protection Agency (EPA) announced [proposed interim decision \(PID\)](#) on three first- generation anticoagulant rodenticides (FGARs), four second- generation anticoagulant rodenticides (SGARs) and four non- anticoagulant rodenticides

As part of that decision, EPA opened a 75-day public comment period. On Jan. 11, [EPA denied stakeholder request](#) for a 60-day extension on the comment period, and the comment period closed on Feb. 13.

On Friday, the National Pest Management Association alerted members that the Agency indicated the Interim Decisions will now be published in 2024. NPMA has since clarified that EPA expects to publish an Interim Decision in FY24, which is October 1, 2023 to September 30, 2024.

NPMA said if an official notice is published, the association will be sure to alert its members.

(PCT Online, May 1, 2023)  
<https://www.pctonline.com/news/epa-interim-decision-rodenticides-2024/>

## **IMPROPER USE OF GLOVES CAN CAUSE SKIN REACTION**

Contact dermatitis is a skin condition that is caused by direct contact with some type of irritant. It usually results in dry, red, itchy, and sometimes cracked and bleeding skin. As long as you are routinely exposed to the irritant, the skin condition continues. Once exposure stops, the skin heals.

Pest control technicians can get hand dermatitis when they wear impermeable gloves frequently. The dermatitis can be from unnoticed contact with chemicals that is then compounded when hands remain damp and too warm inside gloves.

Some technicians might have a skin reaction to the gloves themselves. The lubricant powder used inside latex gloves, for example, can cause skin dermatitis. If you must use latex gloves, choose "powder-free." A small percentage of the population that is allergic to the proteins in latex rubber can have a more serious reaction when using latex gloves.

Skin that is damaged or cracked, or skin that is constantly wet, is more prone to dermatitis. Because the disposable or rubber gloves that we use in pest control can make your hands sweat and then hold in the moisture, don't wear gloves when you don't need to. When you no longer need the gloves for protection, take them off and let your skin breathe.

Remove disposable gloves carefully without touching the outside surfaces with bare fingers. Wash nitrile, rubber, or other noncotton gloves first with soap and water, then remove them.

You might think that washing your hands frequently would help, but it can also remove the natural oils that protect your skin. Putting still moist hands back into gloves is also a problem. If you've been handling pesticides or solvents, you certainly need to wash your hands as directed, but don't overdo it.

If you're working with pesticides, be careful what you touch with your gloved hands. If you later touch that same item (like a flashlight) with ungloved hands, you are exposing your bare skin to the pesticide.

If you need to reduce moisture, separate glove liners can be worn inside your gloves, but the liners must be kept dry and must be disposed of daily. Don't use gloves with a liner already built in. Don't re-use disposable gloves because they are almost impossible to dry thoroughly or to put on again without contaminating your hands.



Don't be shy about using hand lotion to protect and hydrate your skin. But don't buy cheap. Choose a lotion that is for damaged skin and promotes skin healing. (Don't use skin lotions if you use latex gloves since they can deteriorate the gloves.) (PCT Online, May 1, 2023) <https://www.pctonline.com/news/improper-use-of-gloves-can-cause-skin-reaction/>

## ALBAUGH ACQUIRES CORTEVA AGRISCIENCE'S GLYPHOSATE BUSINESS

[Albaugh, LLC](#) announced the acquisition of Corteva Agriscience's straight-goods glyphosate business on Monday. The purchase includes intangible assets only, including trade names, registrations, regulatory data, formulations, patents, and know-how used in Corteva's straight-goods glyphosate business throughout the world with the exception of Argentina.

Albaugh previously acquired Corteva's glyphosate business in Europe. With this latest acquisition, the company will expand its coverage of straight glyphosate DMA salt formulations and registrations globally. All glyphosate DMA salt registrations will be integrated into Albaugh's existing regional sales structure, and Albaugh's sales teams in each region will work with all existing glyphosate DMA salt customers to continue business.

"This latest acquisition of Corteva Agriscience's glyphosate business is a perfect fit for Albaugh," says Jens Thorsen, chief marketing officer. "This will expand our direct access to glyphosate markets in areas where we have not previously had a strong presence, including such countries as Chile, Uruguay, Ecuador, Colombia, and Bolivia, as well as supplementing our existing glyphosate offerings in the U.S., Canada and Brazil."

(FarmProgress, March 14, 2023) <https://www.farmprogress.com/business/albaugh-acquires-corteva-agriscience-s-glyphosate-business>

## EWG'S 2023 DIRTY DOZEN AND CLEAN FIFTEEN LISTS ARE HERE. HOW IMPORTANT IS IT TO AVOID PESTICIDES ON PRODUCE?

Nearly every year since 2004, the Environmental Working Group (EWG) has released two lists surrounding pesticide use in produce. The first is the ominously titled Dirty Dozen, and the second is the more positive-sounding Clean Fifteen. Just recently, the nonprofit, which claims to help individuals live their "healthiest life," delivered its 2023 versions of these lists. But what exactly is the purpose behind them? And how closely should we pay attention to the findings?

What is the Dirty Dozen and Clean Fifteen?

With its Shoppers Guide to Pesticides in Produce, the EWG claims its goal is "to educate the public about pesticides on popular fruits and vegetables." This, it notes, is so that consumers can make the "best decisions for their families when navigating the produce section of their [grocery stores](#)."

The guide always includes two lists: the Dirty Dozen and the Clean Fifteen. Based on produce tested by the USDA and the FDA, the first aims to inform consumers about the non-organic fruits and vegetables that have the highest levels of pesticide contamination. And the second list details the fruit and vegetables that have the lowest levels.

The 2023 Dirty Dozen and Clean Fifteen

The 2023 Dirty Dozen list isn't that dissimilar from 2022's version, only this time it also features blueberries and green beans in the number 11 and number 12 spots respectively, instead of celery and tomatoes.

Strawberries and spinach are in the top spot once again and are followed by [kale](#), collard, and mustard greens, which all feature in third place. The rest of the produce—nectarines, apples, grapes, bell and hot peppers, cherries, peaches, and pears—have shuffled places a little, but all were on the list last year.

According to the EWG, 210 pesticides were found on all of these items. “All of the produce on the Dirty Dozen had at least one sample with at least 13 different pesticides,” it notes. “Some had as many as many as 23.”

Again, the Clean Fifteen list isn’t that dissimilar from last year, only this time it features carrots instead of sweet potatoes in the number 15 spot. This year, sweet potatoes have moved up to number 13, and watermelon is at number 14. [Avocados](#) are at the top, followed by sweet corn, pineapple, onions, papaya, frozen sweet peas, asparagus, honeydew melon, kiwi, cabbage, mushrooms, and mangos.

“Almost 65 percent of Clean Fifteen fruit and vegetable samples had no detectable pesticide residues,” notes EWG.

How concerned should we be about pesticide exposure?

According to the EWG, consumers need to know the annual Dirty Dozen and Clean Fifteen lists because pesticides, which are substances that help to keep pests away from crops, “are toxic by design” and exposure to them can lead to a higher risk of chronic disease, like cancer.

Based on this, the EWG recommends that for those fruits and vegetables that are on the Dirty Dozen list, consumers look for organic produce alternatives, which are grown in a farming system that aims to avoid the use of man-made fertilizers and [pesticides](#), instead.

However, while research does suggest that pesticide exposure is toxic in high doses, many experts also claim that consumers shouldn’t be too concerned about cancer risk when it comes to pesticide traces on non-organic fruit and vegetables.

“In terms of cancer prevention, we don’t have any conclusive evidence or research findings showing that eating non-organic fruits and vegetables increases your cancer risk or that eating organic foods reduces that risk,” Candice Schreiber, RD, CSO, LD, told [The James at the Ohio State University Comprehensive Cancer Center](#), in October 2022.

Schreiber also notes that organic foods can also contain pesticide residue. This is because organic farming does sometimes use natural pesticides to keep pests away from crops. But again, many experts maintain this isn’t something to worry about.

“Potential residues on either conventional or organic produce are in [tiny] amounts that are not linked to any adverse health effects,” Tamika Sims, PhD, of the science-based nonprofit International Food Information Council, told *Healthline* in 2020.

“The US Department of Agriculture Agricultural Marketing Service has issued reports confirming that overall pesticide chemical residues found on foods are at levels below the tolerances established by the US Environmental Protection Agency and do not pose a safety concern,” she added.

Dirty or clean, you should eat your vegetables, say experts

While many people would like to shop for organic foods to limit pesticide exposure, this isn’t accessible to everyone. This is because organic food is typically more expensive than non-organic food, but also because it’s not always readily available either.

According to some estimates, around 23.5 million Americans live in food deserts in the US. These are regions where people (disproportionately, people of color) must travel more than one mile to reach a supermarket. There are usually high concentrations of fast-food restaurants in these areas, but farmer’s markets are nonexistent.

But, in circumstances where people can’t access organic options, fearmongering around pesticide use on non-organic fruits and vegetables can dissuade people from attempting to eat produce altogether, say many dietitians, and this is incredibly damaging to health. Both organic and non-organic fruits and [vegetables](#) are packed with essential vitamins, minerals, and antioxidants.

“Many people may worry about eating produce that isn’t organically farmed and ultimately eat less of it over the long run if organic produce isn’t readily accessible,”

Crystal Karges, RDN, told *Healthline*. “Feeling stress or fear around certain foods or farming practices takes the joy away from eating and can potentially prevent people from consuming foods that would be beneficial to their diet.

The bottom line is, if you’re worried about pesticide use and organic options are available and accessible to you, then go ahead and follow the EWG’s listings. But if this isn’t an option, remember that eating fruits and [vegetables](#) is still vital for good health, organic or non-organic.

“Simply follow the advice of dietitians and health experts and choose the fruits and vegetables that you enjoy that are affordable and accessible for you and your family,” Sylvia Klinger, DBA, MS, RD, told *The Packer*. “But choose to eat more every day for better health and a longer life.” (VegNews, April 28, 2023) <https://vegnews.com/vegan-news/environment/ewg-dirty-dozen-clean-fifteen>

## 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: May 3, 2023

Title: CoAXium® Wheat and Aggressor® AX Herbicide Field Day Course # OK20230249  
Location: Contact for exact Location  
Contact: Mike Johnson (405) 641-3332

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

### Date: May 3, 2023

Title: Canadian County OSU Extension Wheat Field Day  
Location Canadian County Contact for exact Location  
Contact: Kyle Worthington (405) 262-0155

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

### Date: May 3-4, 2023

Title: CoAXium® Wheat and Aggressor® AX Herbicide Field Day Course # OK20230248  
Location: Contact for exact Location  
Contact: Mike Johnson (405) 641-3332

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

### Date: May 5, 2023

Title: McCurtain County Applicator Field Day  
Location: McCurtain County OSU Extension Contact for exact Location  
Contact: Bradley Bain (580) 286-7558

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

### Date: May 5, 2023

Title: FMC 1st Friday Webinar Common Lawn Diseases - Biology and Management  
Location: Virtual- Contact for sign up  
Contact: Ed DeMask (630) 768-1404

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

### Date: May 17, 2023

Title: CoAXium® Wheat and Aggressor® AX Herbicide Field Day Course # OK20230211  
Location: Contact for exact Location  
Contact: Mike Johnson (405) 641-3332

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

**Date: May 17, 2023**

Title: CoAXium® Wheat and Aggressor® AX  
Herbicide Field Day Course # OK20230212  
Location: Contact for exact Location  
Contact: Mike Johnson (405) 641-3332

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

**Date: May 23-24, 2023**

Title: Drones for precision IPM agriculture and crop  
scouting # OK20230335a  
Location: Beaver County Contact for exact Location  
Contact: Loren Sizelove (580) 625-3464

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

**Date: May 19, 2023**

Title: Pottawatomie County Pasture and Livestock  
Tour Bermudagrass Management for Hay Production  
Location: Pottawatomie County Contact for exact  
Location  
Contact: Michael Trammell (405) 273-7683

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

**Date: June 2, 2023**

Title: Oklahoma Pecan Growers Association Annual  
Conference  
Location Contact for exact Location  
Contact: Becky L Carroll (405) 744-6139

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

**Date: May 23, 2023**

Title: Drones for precision IPM agriculture and crop  
scouting Course # OK20230335  
Location: Beaver County Contact for exact Location  
Contact: Loren Sizelove (580) 625-3464

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

**Date: June 9, 2023**

Title: Payne County Pasture Tour  
Location Contact for exact Location  
Contact: Nathan Anderson (405) 747-8320

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

**Date: May 23, 2023**

Title: UNMANNED AERIAL VEHICLES IN  
MOSQUITO MANAGEMENT PROGRAMS  
Location: US Environmental Protection Agency Virtual  
Contact: Dr. Marcia L. Anderson (908) 577-2982  
<https://www.epa.gov/ipm/upcoming-integrated-pest-management-webinars>

CEU's:                   Category(s):  
1                         A  
1                         8  
1                         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](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>

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/](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 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](mailto:kevin.shelton@okstate.edu) or

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

**Pesticide Safety  
Education Program**

