

# 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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## OCTOBER DATE SET FOR UNWANTED PESTICIDE DISPOSAL COLLECTION IN LAWTON

The next Unwanted Pesticide Disposal Program collection date will occur October 30<sup>th</sup>, 2018 in Lawton. The location will be at the Comanche County Fairgrounds located at 920 SW Sheridan in Lawton. The Disposal will run from 8 a.m. to 1 p.m. rain or shine.

**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 30<sup>th</sup> Comanche County Fairgrounds

For more information please go to  
<http://pested.okstate.edu/html/unwanted.html>

## **US EPA INSPECTOR GENERAL HALTS WPS INVESTIGATION**

The Trump administration's decision to release new pesticide safety training materials has prompted the US EPA's Office of Inspector General (OIG) to abandon a probe into why the Agency failed to publish the documents in a timely manner.

The OIG launched an investigation in May into the issue with the intent of assessing the impact of the EPA's failure to notify the public about the availability of new training materials affiliated with the revised Worker Protection Standard (WPS). As the Trump administration published the Notice of Availability (NOA) in June, the investigation is moot, according to the OIG, which did suggest that the delay in releasing the materials undermined implementation of the revised worker safety rules.

The Obama administration finalized the revamped WPS in September 2015 -- the standard is a set of regulations intended to safeguard more than 2 million farmworkers and pesticide applicators. The changes include new training and recordkeeping requirements, expanded restrictions on when workers can re-enter treated fields, and new age limits for workers who handle pesticides.

The Trump administration in early 2017 delayed implementation of the revised WPS, responding to complaints from industry and state officials about the scope and cost of the changes and holding back notification of the availability of the related training materials. In December 2017, the EPA announced that the rule would go into effect in 2018, but said that it would conduct a new rulemaking to reconsider the minimum age requirement along with the "designated representative" and "application exclusion zone" (AEZ) provisions and again delayed release of the training materials.

The continued delay drew swift criticism from environmentalists and Democrats -- two lawsuits were filed in early June alleging that the EPA was needlessly and unlawfully delaying the release of the training materials and thereby hampering implementation of the new safety requirements. The WPS requires employers to comply with the

pesticide safety training materials 180 days after the EPA has published a notice of their availability in the Federal Register.

The lawsuits appear to have prompted the EPA to reverse course as it published the NOA for the training materials on June 14th -- the IG says that the move negates the need for its investigation.

"By publishing the NOA, the EPA is advancing its mission to provide agricultural workers, handlers and employers with the most recent training materials to help mitigate the risk of pesticide exposure," the OIG says in its August 30th report.

The OIG also noted that the EPA has yet to resolve concerns raised in its February 2018 report on the WPS -- that investigation found that the Agency lacks the ability to measure the effectiveness of the revised standard. (Pesticide & Chemical Policy/AGROW, September 6, 2018)

## **TICK CONTROL PROGRAM REVEALS HIGH LEVEL OF INFECTION IN WHITE-FOOTED MICE**

A surprisingly high percent of the white-footed mice collected last summer in Howard County, Md, in an Agricultural Research Service (ARS) Areawide Integrated Tick Management Project turned out to be infected with the bacteria that cause Lyme disease.

The area-wide project in Maryland is mainly a partnership with Howard County Department of Recreation & Parks (HCRP) and University of Maryland. Other collaborators on the project include Pennsylvania State University, Centers for Disease Control and Prevention (CDC), U.S. Army Public Health Center and University of Massachusetts.

The high rate of white-footed mice infected with *Borrelia burgdorferi*, the bacteria that cause Lyme disease, in Howard County — just over 50 percent

of captured mice —was a little surprising to ARS project leader Andrew Li.

What was more surprising, according to Li, was that collaborators doing analogous sampling of mice in New Haven County, Conn., found an unusually low rate of infection of about 35 percent in 2017. More commonly, white-footed mice in Connecticut have infection rates as high as 80 percent

Lyme disease was first recognized as an illness in 1975 in Lyme, Connecticut, in New London County, two counties to the east. Today, about 95 percent of confirmed Lyme disease cases occur in 14 New England, Mid-Atlantic and Midwest states, according to the CDC.

Now, the tick study team is putting out brick-sized black bait boxes in which white-footed mice will treat themselves to kill immature ticks. Mice are lured into the boxes with an attractive food bait. As they move through the box, the mice brush against a wick that applies a tiny amount of the pesticide fipronil, which kills the ticks but does not harm the mice.

Use of the bait boxes is the next phase of a five-year project launched in January 2017 to evaluate several methods of tick control to develop an environmentally sensitive, effective and easily managed control package for suburban areas.

“Our goal is to identify an effective way to reduce tick populations and the associated spread of Lyme disease and other tick-borne illnesses, especially in suburban areas,” said project leader Andrew Li. Li is an entomologist with the ARS Invasive Insect Biocontrol & Behavior Laboratory in Beltsville, Md. “We want to identify vulnerable points in the lifecycle of the tick, so we can have the greatest impact for the least effort.”

Other control methods being tested, individually and in combination, include the bait boxes, ARS-patented “4-poster” deer treatment feeders, and a bioinsecticide spray Met52.

Mouse bait boxes are being placed near residential backyards adjacent to Blandair, Cedar Lane, Rockburn Branch and Wincopin Trail Parks, and the David Force Natural Resource and Middle

Patuxent Environmental Areas in Howard County. Where Met 52 is used, it will be sprayed 3 feet on each side of the border between a residential backyard and the open park area at selected study sites.

This spring, the project also is repeating a mouse collaring effort that began last fall so individual white-footed mice can be tracked to see if the bait boxes change how the mice behave.

“Lyme disease and other tick-borne diseases significantly impact the quality of our lives here in Howard County. Learning ways to reduce the risk of infection by reducing the number of ticks in our parks and neighborhoods would be a tremendous benefit to the public,” said HCRP Deer Project manager Phil Norman of the Department of Recreation and Parks.

The Agricultural Research Service is the U.S. Department of Agriculture's chief scientific in-house research agency. Daily, ARS focuses on solutions to agricultural problems affecting America. Each dollar invested in agricultural research results in \$20 of economic impact. (PCT Online, August 30, 2018)

<http://www.pctonline.com/article/tick-usda-mice-infection/>

## **EPA WATCHDOG: 'EMERGENCY' PESTICIDE APPROVAL PROCESS IS FLAWED**

The U.S. Environmental Protection Agency's Office of the Inspector General released a report Tuesday finding that the agency's practice of routinely granting "emergency" approval for use of pesticides across millions of acres does not effectively measure risks to human health or the environment.

The inspector general recommended that the EPA "develop and implement applicable outcome-based performance measures to demonstrate the human

health and environmental effects of the EPA's emergency exemption decisions."

The EPA disagreed with the recommendation, leaving the issue of chronic overuse of the emergency exemptions unresolved.

"This report makes clear that the EPA has been abusing emergency approval to greenlight pesticide uses that are either too dangerous or the risks are unknown," said Nathan Donley, a senior scientist at the Center for Biological Diversity. "Corporate agriculture is essentially using this as a backdoor to getting highly toxic pesticides approved that would have never made it through the EPA's normal review process."

Under the Federal Insecticide, Fungicide and Rodenticide Act, the EPA has the authority to approve the temporary emergency use of unapproved pesticides if the agency determines the pesticide is needed to prevent the spread of an unexpected outbreak of crop-damaging insects, for example. But this provision has been widely abused.

That widespread abuse was chronicled in the Center's recent report, *Poisonous Process: How the EPA's Chronic Misuse of 'Emergency' Pesticide Exemptions Increases Risks to Wildlife*. For example, as of 2017 the EPA had granted 78 "emergency" exemptions for sulfoxaflor, a pesticide that the EPA itself concluded is highly toxic to bees.

Previously, in response to beekeepers challenging this registration, the 9th Circuit Court of Appeals vacated the EPA's original registration of sulfoxaflor in 2015. The EPA's new 2016 registration for sulfoxaflor—purportedly designed to ensure essentially no exposure to bees—excluded crops like cotton and sorghum that are attractive to bees. However, the Center's report found that the EPA has used emergency exemptions to allow sulfoxaflor use on more than 17.5 million acres of U.S. cotton and sorghum farms.

In addition to the 22 emergency exemptions granted so far in 2018, the 78 emergency exemptions for sulfoxaflor highlighted in the Center's report detail how the EPA misuses these exemptions:

Rarely was any actual emergency identified by the EPA. For example, the emergency uses of sulfoxaflor on cotton were in response to an insect that had been an ongoing problem for at least a decade.

The emergency uses approved for sorghum were issued in at least 18 states in response to an insect that has been a known problem for the past five years.

Fourteen states were given emergency exemptions for sulfoxaflor for at least three consecutive years for the same "emergency."

In addition to sulfoxaflor, the EPA has granted eight emergency approvals in the past three years for use of the medically important antibiotics oxytetracycline and streptomycin on citrus trees in Florida and California.

For more than 10 years the U.S. Food and Drug Administration and World Health Organization have recognized these drugs as being "highly important" or "critically important" to human medicine—including playing a vital global role in combating tuberculosis. The misuse and overuse of antibiotics can result in the spread of bacteria resistant to them, triggering growing international concern over the continuing long-term ability of these drugs to tackle disease.

"The EPA is far too busy looking for loopholes to approve harmful pesticides when it should be focusing on keeping humans and wildlife safe from those pesticides," said Donley. "The routine abuse of emergency exemptions must be eliminated." (EcoWatch, September 25, 2018)

<https://www.ecowatch.com/epa-watchdog-emergency-pesticide-approval-process-is-flawed-2607868913.html>

## **MONSANTO APPEALS \$289 MILLION US GLYPHOSATE CANCER VERDICT**

Bayer legacy company Monsanto has asked a US state of California judge to reverse a jury's \$289 million award to a former school groundskeeper who alleged that exposure to glyphosate herbicide caused him to develop cancer. The company contends that the plaintiff failed to provide evidence to support the allegations and says that the court should vacate the ruling or call for a new trial.

“The scientific evidence in this case falls far short of the sufficient and substantial evidence required to sustain this verdict,” the company says.

The controversy is a major headache for Bayer, which faces claims from some 8,700 plaintiffs in federal and state courts who contend that they developed cancer because of exposure to glyphosate.

The jury sided with plaintiff Dewayne Johnson after several weeks of testimony, concluding that Monsanto failed to warn him of the potential cancer risks from the herbicide. The August 10th verdict awarded Mr. Johnson \$30 million in compensatory damages and also hit Monsanto with another \$250 million in punitive damages.

In its appeal, Monsanto notes that regulators “across the world have concluded on multiple occasions” that glyphosate is not a human carcinogen and argues that the herbicide has a 40-year history of safe use.

The plaintiff's “entire case for causation was flawed from the ground up because he did not present any evidence, much less substantial evidence, that there was more than a 50-50 possibility” that Monsanto's glyphosate products caused his disease, the company argues in its September 18th appeal.

“Plaintiff's reliance on animal and mechanistic studies lacked any evidence of the critical bridge to

human outcomes that was necessary for them to prove causation under California law,” according to Monsanto. “Without this evidence, the jury was improperly allowed to make its own extrapolation and fill in the missing link to causation that plaintiff failed to provide.”

The jury award was excessive and unfair, Monsanto adds, noting that punitive damages cannot be warranted unless there was “clear and convincing evidence” that the company knew or should have known that its glyphosate products could cause cancer and failed to issue appropriate warnings.

“It would require extraordinary evidence to show that Monsanto did know such a thing when the consensus of those who make such evaluations for the public safety -- EPA and the other national and international regulators -- agree that the formulation does not cause any human cancer,” the company argues. “But no such extraordinary evidence (or any competent evidence) was offered to demonstrate such knowledge.”

Monsanto says that there was “no evidence” that any company employee or scientist “willfully or knowingly disregarded a cancer risk” or knowingly intended to harm the plaintiff or any other consumer.

Monsanto also notes that the reliance on the UN WHO's International Agency for Research on Cancer (IARC) is flawed, saying that there “was, and is, a global consensus” of glyphosate's safety both before and after the Agency issued its 2015 declaration that the herbicide is a “probable human carcinogen”.

“Indeed, after IARC's evaluation, all of the worldwide regulators continue to find that the formulation is safe and not carcinogenic,” the company says. “Monsanto cannot be punished, consistent with the 'elementary notions of fairness' for a risk that no regulatory or scientific body, or other manufacturer, had identified prior to plaintiff's exposure and [cancer] diagnosis.”

The plaintiff's attorney has until September 27th to file their response. The court is set to decide the fate of Monsanto's request by October 22nd. (Pesticide & Chemical Policy/AGROW, September 20, 2018)

## **TRUMP ADMINISTRATION ASKS COURT TO RE-HEAR CASE THAT BANNED CHLORPYRIFOS**

The Trump administration is appealing a federal court ruling that ordered the U.S. Environmental Protection Agency (EPA) to ban chlorpyrifos, a widely used pesticide tied to brain damage and other health problems in children.

In August, the Ninth Circuit Court of Appeals ruled the EPA must ban the pesticide within 60 days based on strong scientific evidence that chlorpyrifos—which is applied on dozens of fruit, nut and vegetable crops—is unsafe for public health.

The court's ruling nullified a decision by then-EPA Administrator Scott Pruitt, who rejected his own agency's proposal to ban the toxic chemicals. Reports showed that Pruitt made the decision after intense lobbying from the pesticide and agriculture industry and the leading chlorpyrifos manufacturer, DowDuPont.

On Monday, the Trump administration requested the full court to rehear the case, effectively postponing the effectiveness of last month's court order.

In their Monday filing, Department of Justice attorneys said the court's ruling violated Supreme Court precedent and the law when it made its decision, The Hill reported.

The attorneys said the Ninth Circuit should have overturned the EPA's decision and sent it back for reconsideration rather than ordering a full ban, The Hill wrote. They also argued that the court did not

have the authority to rule in the case, and it should have gone to a lower district court first.

"The important thing here is that courts are not supposed to operate this way," EPA spokesman Michael Abboud told The Hill in a statement.

"This opinion nullifies the [Federal Insecticide, Fungicide, and Rodenticide Act] process, violating a congressionally mandated statute. EPA takes science and health issues very seriously, but we must work within the legal process established by Congress."

The ruling "conflicts with Supreme Court precedent holding that where an agency's order is not sustainable on the record, a court should vacate the underlying decision and remand for further consideration by the agency, rather than directing specific action."

U.S. Secretary of Agriculture Sonny Perdue praised the administration's decision.

"The costs of an incorrect decision on chlorpyrifos are expected to be high and would cause serious impacts to American farmers working to feed, fuel, and clothe the United States and the world," Perdue said in an online statement. "This ruling, which would mean the sudden and total loss of chlorpyrifos, prevents farmers from using an effective and economical crop protection tool. Chlorpyrifos is used on well over 50 crops grown throughout the United States due to its efficacy and broad-spectrum activity across multiple pests. For some crops and target pests, chlorpyrifos is the only line of defense, with no viable alternatives."

Earthjustice, which represented the Pesticide Action Network and the Natural Resources Defense Council in the case, criticized the move.

"Trump's EPA is delaying the inevitable and putting people in harm's way," Patti Goldman, Earthjustice managing attorney, said in a press release. "By keeping this unsafe pesticide in our food and drinking water, EPA is violating the law. Every day we go without a ban, children and farmworkers are needlessly eating, drinking and breathing this dreadful pesticide."

Erik Olson, senior director of health and food at the Natural Resources Defense Council, had similar sentiments.

"The Trump administration is shameless in its refusal to ban this dangerous chemical that is poisoning our children's brains," he said in an online statement. "Science, the law and EPA's own staff have all made it clear this toxic stuff does not belong on our food or in our fields, yet this administration is still going to bat for the billion-dollar chemical industry. We will not stop fighting

(EcoWatch, September 25, 2018)

<https://www.ecowatch.com/trump-administration-chlorpyrifos-2607820657.html>

## **UF ENTOMOLOGIST URGES PRECAUTIONS AGAINST MOSQUITO-BORNE VIRUSES**

A University of Florida entomologist urges Floridians to protect themselves against biting mosquitoes because of unusually high levels of mosquito-borne virus transmission to sentinel chickens, horses and humans so far this summer.

"Floridians need to be aware of mosquito-borne disease risk and protect themselves from mosquito bites, especially from dusk to dawn," said Jonathan Day, an entomology professor with the UF Institute of Food and Agricultural Sciences. "People with outdoor evening activities should take precautions to avoid mosquito bites, including wear protective clothing and use insect repellents, preferably those that contain 5 percent to 20 percent DEET as the active ingredient from now through early December."

Infected mosquitoes are transmitting eastern equine encephalitis virus (EEEV) and West Nile virus (WNV) throughout Florida. Both of these viruses can cause severe disease in humans and horses, said Day, a faculty member at the Florida Medical Entomology Laboratory in Vero Beach, Florida.

According to the Centers for Disease Control and Prevention, eastern equine encephalitis virus is rare in humans, and only a few cases are reported in the U.S. each year. Most people infected with EEEV have no apparent illness. Severe cases of EEEV begin with the sudden onset of headache, high fever, chills and vomiting. The illness may then progress into disorientation, seizures or coma.

EEE is one of the most severe mosquito-transmitted diseases in the United States with about 33 percent mortality, and significant brain damage in most survivors, the CDC says.

As for WNV, there is no vaccine available and treatment after infection is only supportive. Most people infected with WNV do not have symptoms, the CDC says. About one in five people who are infected develop a fever and other symptoms. About 1 out of 150 infected people develop a serious, sometimes fatal, illness.

Many Florida mosquito control and public health programs use sentinel chickens to monitor mosquito-borne virus transmission.

As of Aug. 25, 139 sentinel chickens in 12 Florida counties tested positive for the antibody to EEEV, Day said. Most of the sentinel chickens are in North Florida, specifically from Orange to Nassau counties.

During the same time, 165 sentinel chickens in 15 Florida counties tested positive for antibody to WNV, Day said. Counties with West Nile antibody-positive sentinel chickens range from Walton County in the Florida Panhandle to Charlotte County along the Florida Gulf Coast.

Fifty-one horses, most in north Florida, have tested positive for eastern equine encephalitis, and most have died, Day said.

Three human cases of eastern equine encephalitis have been reported, one each in Taylor, Columbia and Volusia counties, UF/IFAS entomologists say. A case of West Nile Virus has been reported in a Levy County horse, and seven human cases of West Nile Virus have been reported in Bay, Nassau, Duval and Manatee counties. (PCT Online, September 7, 2018) <http://www.pctonline.com/article/uf-entomologist-urges-precaution-mosquito-borne-virus/>

## **JUNGLERICE RESISTANT TO GLYPHOSATE FOUND IN US**

US scientists have identified populations of the grassy weed, junglerice (*Echinochloa colona*), with resistance to the herbicide, glyphosate, in the US states of Mississippi and Tennessee. The population in Mississippi was four times more resistant to the herbicide than susceptible populations, while that in Tennessee was seven times more resistant. The researchers identified two separate resistance mechanisms. In one population, resistance was attributed in part to a target-site mutation in an EPSPS gene, while in the other it was conferred by reduced translocation of glyphosate. Junglerice occurs in rice, maize and vegetable crops. Populations of the weed with resistance to multiple herbicides have previously been found in Arkansas, California and Mississippi but glyphosate was not among them. The latest research has been published in the journal, *Weed Science*. (Pesticide & Chemical Policy/AGROW, September 20, 2018)

## **MARIJUANA DISPENSARY SLAMS STATE FOR PESTICIDE BUST**

Members of the Massachusetts medical marijuana industry are warning that a state crackdown on their

use of pesticides — including natural compounds used widely on organic food — would cripple growing operations and threaten the supply of cannabis to patients who rely on the drug.

Regulators at the state Department of Public Health ordered Colorado-based medical marijuana company Good Chemistry to close its growing and processing operation in Bellingham and its dispensary in Worcester after a routine inspection earlier this month.

Inspectors for the department said in a cease-and-desist order that workers at the Bellingham facility had applied unapproved pesticides to its cannabis crop, and that marijuana flower and other products derived from the crop posed “an immediate or serious threat” to public health and safety. It referred the investigation to the state Department of Agricultural Resources, or MDAR, which regulates the use of pesticides on crops including, as of last year, marijuana.

Good Chemistry, however, insists there is no threat. The company — whose Worcester dispensary has since been allowed to reopen and sell marijuana from other suppliers — said it used three natural compounds approved by the federal government for use on organic food, two of which are also approved for use on tobacco. Regulators in Oregon, Colorado, Washington, and Nevada have approved all three for use on marijuana, according to public documents.

“These organic compounds are safe all over the country, and they’re safe in Massachusetts,” said Jim Smith, a lawyer for Good Chemistry. “For the state to single out Good Chemistry for using an industry-standard practice is absolutely wrong. It’s not acceptable — and we’re not going to destroy the crop, because it poses no risk to public safety whatsoever.”

Industry members say the Department of Public Health previously allowed the use of pesticides for marijuana that had been approved by the federal government for use on organic food.

But last year, the health department ceded oversight of pesticides to MDAR amid a broader set of regulatory adjustments.

MDAR has ruled that cannabis growers can only use pesticides approved for use on marijuana by the US Environmental Protection Agency. The EPA, a federal agency, has refused to approve pesticides for use on marijuana because the drug remains illegal under federal law. MDAR's policy, therefore, amounts to a de facto ban on any pesticides.

Katie Gronendyke, an MDAR spokeswoman, said in an e-mail that her department "is committed to ensuring that all pesticides used in the Commonwealth undergo rigorous testing, and as a result requires that all pesticides be registered with the federal Environmental Protection Agency before being considered for approved use."

DPH officials said the department had in fact never allowed the use of pesticides, natural or otherwise, and that its updated regulations make the rule clear.

"The use of pesticides of any kind by a Registered Marijuana Dispensary in the cultivation of medical marijuana is prohibited under both Department of Public Health and Massachusetts Department of Agricultural Resources regulations," a DPH spokeswoman said in a statement. "DPH does not condone the use of pesticides of any kind, including organic pesticides, and continues to work with its partners at MDAR to educate the industry on meeting the regulatory requirements of both agencies."

Before the department rewrote its rules last fall, its regulation stated that the "application of any non-organic pesticide in the cultivation of marijuana is prohibited. All cultivation must be consistent with US Department of Agriculture organic requirements."

Jay Youmans, a lobbyist for Good Chemistry and other marijuana companies who previously worked at DPH and helped draft its regulations, disputed officials' assertion that pesticides have never been allowed.

"DPH's intention in drafting these regulations was absolutely to incentivize and allow for organic cultivation practices," Youmans said.

According to publicly available records, Good Chemistry disclosed its intention to use the three organic pesticides before it opened — once in its license application to the health department, and again in later filings describing the details of its growing operation.

The pesticides used by Good Chemistry are two organic fungicides — sulfur and regalia, a natural compound found in giant knotweed — and pyrethrins, a class of insect-repelling chemicals derived from chrysanthemum flowers.

Public records show that several other dispensaries also told regulators they planned to use similar organic pesticides — yet only Good Chemistry has been shuttered by the state. Smith, the company's lawyer, said Good Chemistry was punished because it studiously documented the chemicals applied to its plants on a checklist reviewed by inspectors, while other operators have worked to hide their use of pesticides during inspections.

"Being a transparent company, Good Chemistry kept a complete log of everything they do to every plant, and they showed the log to DPH," Smith said. "It's unfair and harmful to their reputation."

However, Smith conceded that Good Chemistry should have separately applied to the state for permission to use the pesticides.

Two marijuana executives from other companies, including one at a marijuana testing lab, said DPH regulators earlier this year verbally reassured cannabis operators they could use organic pesticides — as long as the results from required lab tests showed the products didn't contain any of the nine synthetic pesticides explicitly banned by the state for use on marijuana. The executives asked to remain anonymous because they feared retribution from regulators.

Officials did not respond to that assertion, or to questions about whether the health department was aware that Good Chemistry and other operators disclosed their intention to use pesticides in applications and other required submissions to the state.

Marijuana cultivation experts said that because of New England's climate, it's nearly impossible to grow cannabis without using pesticides and still meet tight state limits on the presence of microbes in marijuana.

Adam Gendreau, a growing and processing consultant who works with marijuana companies in Massachusetts and other states, said pesticides similar to those used by Good Chemistry are staples at cultivation operations here and across the country.

"They're completely common," Gendreau said. "Especially in Massachusetts — this is a very humid environment in which there is lots of ambient yeast mold in the air. You're growing these very dense, heavy, moist flowers, and they tend to be strong breeding grounds for it to grow."

The Good Chemistry flap is only the latest incident to shine a spotlight on the state's troubled marijuana-testing regimen. The Globe reported last month that testing labs are divided over how to accurately test for microbes in marijuana, and that state regulators have done little to reconcile disparities in their results.

Steve Hoffman, chairman of the Cannabis Control Commission, said in a recent interview with WGBH that the commission was aware of the problems and would work to solve them. (Boston Globe, September 13, 2018)

<https://www.bostonglobe.com/metro/2018/09/12/marijuana-dispensary-slams-state-for-pesticide-bust/F6PMOmtj10WEfaTr0sWo3O/story.html#comments>

## **ENVIROS REFUTE DOW'S ASSESSMENT OF ENLIST DUO LITIGATION**

US environmentalists are pressing a federal court to vacate the registration of Dow Agrosiences' Enlist Duo herbicide, (glyphosate + 2,4-D choline), arguing that the US EPA's review of the product was inadequate.

A coalition of environmentalist groups, led by the Center for Food Safety, says that the Agency has failed to support its decision with the substantial evidence required by the Federal Insecticide, Fungicide and Rodenticide Act and ignored its obligations under the Endangered Species Act (ESA). They argue that the approval of Enlist Duo "threatens hundreds of endangered species and exposes thousands of farmers to significant harm" and want the product pulled from the market.

The coalition's latest filing with the US Court of Appeals for the Ninth Circuit takes aim at the EPA's defence of its actions and Dow's argument that the complaint fails on jurisdictional grounds.

The EPA first registered Enlist Duo in November 2014 but environmentalists quickly challenged the approval in federal court. At the EPA's request, the US Court of Appeals for the Ninth Circuit remanded the registration in January 2015, allowing the product to remain on the market while the Agency reviewed new evidence of potential synergistic effects.

The EPA subsequently concluded the concern was unwarranted and issued a new conditional registration in January 2017 that has allowed use of Enlist Duo on Dow's genetically modified maize, cotton and soybeans in 34 states.

The Agency highlighted the "low volatility" of the herbicide and noted that it had retained restrictions on aerial applications as well as requirements for updated application technologies and buffer zones to protect sensitive areas.

But the coalition of environmentalists were not convinced by the Agency's assessment and filed new lawsuits last year.

The complaints, consolidated before the Ninth Circuit, allege that the EPA has failed to fully assess the human health effects of the two active ingredients. The plaintiffs also contend that the EPA has ignored the ESA requirement to consult with federal wildlife agencies about the potential harm to listed species from the approved uses of the Dow herbicide.

The EPA rebuffed the allegations in July, arguing that it had followed the law and called on the Court to reject the complaint. Farm groups representing some 6 million US farmers have also rallied to Dow's defence, telling the Court that Enlist Duo is an "irreplaceable tool" needed to help growers fend off glyphosate-resistant weeds.

The Agency told the Court that its 2017 amendment to the Enlist Duo registration was made based on a "more stringent legal standard" than required by the FIFRA and supported by clear evidence that found use of the herbicide would not "generally cause unreasonable adverse effects on the environment".

In their September 14th reply, the environmentalists say that the EPA had relied on an "irreparably flawed" Dow study of Enlist Duo's volatility and mismatched registration standards to push through approval of the herbicide.

"The agency must conclude not merely that the pesticide's new use will not 'generally cause' unreasonable adverse effects, but that it will also not even 'significantly increase' the risks of those adverse effects happening, above and beyond the currently-registered uses," the coalition says.

The Agency failed to meet the "unreasonable adverse effects" standard because it did not address the fact that prior to approval of Enlist Duo, 2,4-D could not be sprayed on commodity crops, according to the coalition.

"This use of 2,4-D is unprecedented," the environmentalists say. "EPA does not even attempt to argue it met this factor, or how it could have.

This underscores the tests are different, and it is not harmless for EPA to apply one in place of another willy-nilly."

The coalition's latest filing also hits back at Dow's jurisdictional claims that they lack standing to bring the complaint. Dow is trying "to raise the bar" by suggesting that the petitioners need to show "actual harm" from the registration even though the legal standard says they only need to demonstrate "increased risk of harm" to have standing, the coalition says.

The environmentalists also take issue with Dow's argument that vacating the Enlist Duo registration would lead to use of more environmentally harmful herbicides.

Many alternatives are "far safer" and failure to pull Enlist Duo from the market will increase agricultural use of 2,4-D by "an astounding 200% to 600% without diminishing glyphosate applications", the coalition concludes. "Dow's attempt to portray that as somehow better for the environment is contrary to the record, science, and common sense."

Oral arguments in the dispute have been tentatively scheduled for December. (Pesticide & Chemical Policy/AGROW, September 21, 2018)

## **OSU PESTICIDE EDUCATION TWITTER ACCOUNT**

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

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

Find us on Twitter at [@OkstatePestEd](https://twitter.com/OkstatePestEd)

## CEU Meetings

Date: October 9, 2018

Title: Winfield Academy

Location: Reed Center Midwest City Ok

Contact: Dana Ellis (612) 240-5535

[www.winfieldacademy.com](http://www.winfieldacademy.com)

CEU's:	Category(s):
1	1A
1	2
5	3A
1	3B
2	3C
2	5
2	6
2	7A
4	7B
9	10

Date: October 11, 2018

Title: Winfield Academy

Location: Renaissance Hotel Tulsa Ok

Contact: Dana Ellis (612) 240-5535

[www.winfieldacademy.com](http://www.winfieldacademy.com)

CEU's:	Category(s):
1	1A
1	2
5	3A
1	3B
2	3C
2	5
2	6
2	7A
4	7B
9	10

Date: October 11, 2018

Title: APWA/CME Training Day

Location: Francis Tuttle Business Innovation Center  
Edmond OK

Contact: Richard Kindberg (405) 717-7828

<http://cme.francistuttle.edu/>

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

Date: October 12, 2018

Title: Turf and Ornamental Workshop

Location: Garfield County Extension, Enid OK

Contact: David Gerken (580) 249-4460

[www.johnstonsseed.com](http://www.johnstonsseed.com)

CEU's:	Category(s):
4	3A
4	10

Date: October 16, 2018

Title: Target Shawnee Workshop 2018

Location: Grand Casino Shawnee Ok

Contact: Jennifer Gonzalez (800) 352-3870

[www.target-specialty.com](http://www.target-specialty.com)

CEU's:	Category(s):
3	3A
3	7A
4	7B
1	8
7	10

## ODAFF Approved Online CEU Course Links

Date: October 22, 2018

Title: Kansas Agricultural Aviation Association annual convention

Location: Hilton Garden Inn Manhattan KS

Contact: Rhonda McCurry (316) 796-1180

[www.ksagaviation.org/](http://www.ksagaviation.org/)

Repeat dates October 23 and 24.

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

Date: October 23-25, 2018

Title: 2018 National Right-of-Way Applicator Workshop

Location: Courtyard Denver Airport Denver CO

Contact: Sandra K McDonald (970) 266-9573

[www.mountainwestpest.com/national-r-o-w-workshop.html](http://www.mountainwestpest.com/national-r-o-w-workshop.html)

CEU's:	Category(s):
6	6 Oct. 23
6	6 Oct. 24
3	6 Oct. 25

Date: November 5-7, 2018

Title: Oklahoma Ag Expo 2018

Location: Embassy Suites Norman

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

[www.oklahomaag.com](http://www.oklahomaag.com)

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

Date: November 14, 2018

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

Location: Courtyard Marriott Norman OK

Contact: Joshua Britt (580) 235-3816

[www.rrsi.com](http://www.rrsi.com)

CEU's:	Category(s):
6	6

**PestED.com**

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

**CEU School**

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

**Technical Learning College**

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

**Green Applicator Training**

<http://www.greenapplicator.com/training.asp>

**All Star Pro Training**

[www.allstarce.com](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/>

**Univar USA**

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

**Southwest Farm Press Spray Drift Mgmt**

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

**SW Farm Press Weed Resistance Mgmt in Cotton**

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

**Western Farm Press ABC's of MRLs**

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

**Western Farm Press Biopesticides Effective Use in Pest Management Programs**

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

**Western Farm Press Principles & Efficient Chemigation**

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

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

<http://www.oda.state.ok.us/cps-ceu.htm>

## ODAFF Test Information

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

October		November	
1	OKC	5	OKC
11	Tulsa	6	McAlester
15	OKC	8	Tulsa
25	Tulsa	19	OKC
		29	Tulsa

- Altus: SW Research & Extension Center  
16721 US HWY 283
- Ardmore: Carter County Extension Office  
107 1<sup>st</sup> Ave Ardmore OK
- Enid: Garfield County Extension Office,  
316 E. Oxford.
- Goodwell: Okla. Panhandle Research &  
Extension Center, Rt. 1 Box 86M
- Hobart: Kiowa County Extension Center  
Courthouse Annex, 302 N. Lincoln
- Lawton: Great Plains Coliseum,  
920 S. Sheridan Road., Prairie Bldg
- McAlester: Kiamichi Tech Center on  
Highway 270 W of HWY 69
- OKC: ODAFF Building 2800 N Lincoln  
BLVD Oklahoma City OK (**New  
Location**)
- Tulsa: NE Campus of Tulsa Community  
College, (Apache & Harvard)  
Large Auditorium



# Oklahoma Unwanted Pesticide Disposal Program

<http://pested.okstate.edu/html/unwanted.html>



**October 2018**

## When & Where?

8:00 am to 1:00 pm

**DATE** October 30, 2018  
**COUNTY** Comanche County  
**CITY** Lawton  
**LOCATION** Comanche County Fairgrounds 920 SW Sheridan

### What is the Oklahoma Unwanted Pesticide Disposal program?

The Oklahoma Department of Agriculture, Food and Forestry is funding a program to help collect and properly dispose of unwanted pesticides that homeowners, farmers, ranchers, commercial applicators, or dealers may have. For future locations and dates check the website listed above.

### What are unwanted pesticides?

Unwanted pesticides are pesticides that are unusable as originally intended for various reasons. Unwanted pesticides are leftover pesticides, pesticides that are no longer registered in the state of Oklahoma, pesticides that no longer have labels and pesticides that are no longer identifiable.

### Who is eligible to participate and what does it cost?

Oklahoma commercial and non-commercial applicators and pesticide dealers may participate. Oklahoma farmers and ranchers and homeowners can use the program as well. There is no cost for the first 2,000 pounds of pesticides brought in by a participant.

- Liquid pesticide weighs about 10 pounds per gallon.

### Will someone pick up my pesticides for me?

No it is the owner's responsibility to transport the pesticides to the site. Some transportation tips can be found at <http://pested.okstate.edu/pdf/transport.pdf>

### What are the steps to participate in the collection program?

Applicators, homeowners, farmers, and ranchers are not required to pre-register. Dealers are asked to voluntarily pre-register through the OSU Pesticide Safety Education Program. After completing pre-registration requirements, if required, bring unwanted pesticides safely to one of the collection sites. Visit the OSU Pesticide Safety Education Program for information and how to register at <http://pested.okstate.edu/html/unwanted.html>.

### Why are dealers asked to pre-register?

Dealers are asked to pre-register due to the potential of large quantities coming from multiple dealers and/or multiple locations. This allows the contractor to plan the appropriate resources to handle the quantity of pesticides that comes into the collections.

### Will the department use my participation in the program as a means to prosecute for illegal management of pesticides?

No, the disposal program is a service program designed to remove unusable pesticides from storage and reduce the potential threat to public health and the environment. Those disposing of pesticides will not be required to provide their names or details on their chemicals. The disposal service is free up to 2,000 pounds.

### Contact Information:



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 Pesticide Safety Education Program  
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