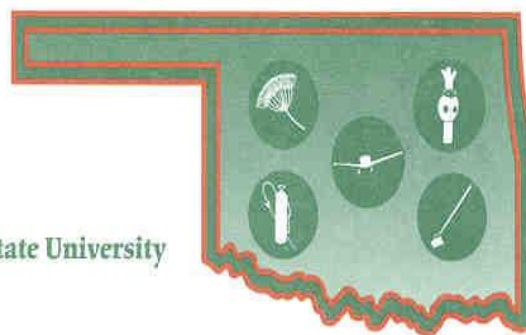


# PESTICIDE REPORTS

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



**April, 2017**

**CHEM**

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## OKLAHOMA ELEVATOR WORKSHOPS

OSU will hold three Elevator workshops across the state in April. CEUs will be offered in Fumigation 7C and Bird & Vertebrate Animal Pest 11A plus Demonstration and Research 10 categories. CEU numbers are pending.

The locations and times for the meetings are listed below.

April 26 in Shawnee from 8:30 a.m. – 12:30 p.m.

April 26 in Enid from 5:30 – 9:30 p.m.

April 27 in Clinton from 11:30 a.m. – 3:30 p.m.

Registration cost is \$75 by April 18 or \$100 after April 18.

You can register on-line by visiting this link <http://orangehub.okstate.edu> (Agricultural Conference Services, OK Elevator Workshops)

For more information concerning registration contact: Agricultural Conferences at 405-744-6489

For other workshop information contact: Carol Jones at 405-744-6667 or Edmond Bonjour at 405-744-8134

## **APRIL TEST HELP SESSIONS**

The OSU Pesticide Safety Education Program will conduct the next test help sessions for 2017 in April. Mark your calendars the workshops will be held April 6<sup>th</sup> in Tulsa and April 20<sup>th</sup> in Oklahoma City.

The Tulsa session will be at the Tulsa County Extension Office at 4116 E. 15<sup>th</sup>. **The Oklahoma City Test help session will at the new Oklahoma County Extension Office 2500 NE 63rd.**

The help sessions will focus on information covered in the core and service tech tests. OSU PSEP will answer any questions over other category tests during this session.

Applicators should acquire and study the manuals before coming to the help session for optimum success. Study manuals can be purchased by using the manual order form available at our website <http://pested.okstate.edu/pdf/order.pdf> or by calling University Mailing at 405-744-5385.

**ODAFF Testing fees are not included in the registration fee and must be paid separately.**

Register online at the Pesticide Safety Education Program (PSEP) website at <http://pested.okstate.edu/html/practical.htm>. Registration forms can also be downloaded from the website.

Registration will start at 8:30 and the program will run from 8:45 am to 12:30 pm at both locations. Testing will begin at 1:30 pm at both locations.

**NO CEU's will be given for this program!**

More Test Help Workshop dates are scheduled for 2017. Please go to the website below for the 2017 dates.

<http://pested.okstate.edu/html/practical.htm>

## **SCIENTIFIC ADVISORY PANEL REPORT FOR GLYPHOSATE AVAILABLE**

The Federal Insecticide, Fungicide, and Rodenticide Act Scientific Advisory Panel (SAP) met December 13-16, 2016, to consider a set of scientific issues being evaluated by the Environmental Protection Agency (EPA) regarding EPA's evaluation of the carcinogenic potential of the herbicide glyphosate. The meeting minutes and final report from the meeting are now available.

The minutes and <https://www.regulations.gov> final report can be found on the FIFRA SAP web site (<https://www.epa.gov/sap>) and in the OPP Docket # EPA-HQ-OPP-2016-0385 (<https://www.regulations.gov>). EPA will review this document as well as other comments before making a final determination regarding the potential carcinogenicity of glyphosate.

EPA is currently scheduled to publish the draft glyphosate human health and ecological risk assessments for public comment in 2017. Glyphosate is undergoing registration review, EPA's periodic review of pesticide registrations required under the law to ensure that each pesticide continues to satisfy the statutory safety standard for registration. (EPA March 17, 2017) <https://www.epa.gov/pesticides/scientific-advisory-panel-report-glyphosate-available>

## INSECTICIDES: HOW TO WIN WITH A SMALLER ARSENAL

There's no way around it: Loss is a central theme this year in dealing with insect pressure in the U.S.

“My biggest problem with losing [insecticide] products is we don't know what we're going to lose next. We don't know what we're going to have resistance to,” says Dr. Scott Stewart, Professor of Entomology and IPM Extension Specialist at the University of Tennessee. “We need options in the tool chest.”

EPA's decision to cancel the registration for Bayer CropScience's Belt (flubendiamide), was upheld over the summer.

The label for Dow AgroSciences' Transform (sulfoxaflor), too, is now lost on several important crops due to lawsuits about pollinators, a temporary Section 18 exemption was granted in 2016 for certain crops in certain states, namely sorghum and cotton through the South. As cotton acres are set to increase across the South, a Section 18 request will be submitted again this year for tarnished plant bug in the mid-southern states, Stewart says.

There is the potential loss of uses for another key chemistry — pyrethroids — as EPA recently published preliminary risk assessments indicating a concern. The 60-day public comment period on this draft risk assessment ends on January 30.

For others, such as soybean growers battling pyrethroid-resistant aphids in Minnesota, options are few and far between. The state's department of agriculture turned down a Section 18 exemption request for use of Transform on soybean aphid in 2016, but concerned growers will likely be pushing for it once again this year, says Bruce Potter, Extension Integrated Pest Management Specialist with the University of Minnesota.

An exemption may prove more critical given that chlorpyrifos, sold under Dow's Lorsban name, is now also under threat.

In November, EPA announced a notice of additional data availability (NODA) for its proposed revocation of all chlorpyrifos food residue tolerances, and reopened the public comment period. “We relied on it heavily, particularly where we were dealing with pyrethroid-resistant soybean aphid,” Potter says.

Dow AgroSciences strongly criticized the NODA. Phil Jost, Dow's U.S. Insecticides Marketing Leader, tells CropLife®: “The assessment lacks scientific rigor, is contrary to EPA and administration policies of data access and transparency in scientific decision-making, and falls short of the FIFRA requirement that decisions be based on valid, complete and reliable scientific data. However, it is important to note this NODA is not a final decision.” Chlorpyrifos is a critical tool for growers of more than 50 different types of crops in the U.S., he adds.

“I'm a little nervous about [chlorpyrifos' future],” Potter admits.

The problems, however, reach beyond aphids and pyrethroid treatments. Dow and DuPont Pioneer's Herculex above-ground trait is failing to provide control of Western bean cutworm. Western corn rootworm populations resistant to multiple Bt proteins are well-documented in Minnesota and several other states. Migratory insects present challenges in predicting insecticide or trait performance from year to year; resistance to some Bt proteins has been found in southern populations of fall armyworm and suspected in corn earworm.

“The battle we're fighting right now is trying to steward these (insect control tools) as long as we can. I think that's one reason IPM concepts are important right now, and this whole concept of

economics and treating only when you need to just to keep some of the pressure off,” Potter says.

### **Save, Trade, Rotate**

More growers are planting non-Bt corn to save on seed costs, and that practice is expected to expand in 2017. “They are trying to pick and choose fields that are lower risk before planting, and scouting for corn borer, leaving rootworm management to rotation,” Potter says.

Traits figure heavily in conversations with customers these days, says Rick Ekins, FMC Portfolio Manager, Fungicides and Insecticides. There will be an increasing number of growers that reduce traits and then augment with an insecticide treatment either in-furrow or foliar, or a combination of the two — and they will see a cost savings to produce their corn crop, according to Ekins. “There is room in there, if you reduce the trait, to protect where the trait is now absent and still decrease your input costs while maintaining an economic level of control,” he says.

No doubt, growers will continue to look for cheaper insecticide alternatives to brand names as commodity prices lag, and more products fall off patent with fewer new chemistries to replace them. “If growers feel they can get the same quality on the generic market for cheaper they will do it for sure. You will see that continue to expand,” Stewart says.

According to Keith Jarvi, Associate Extension Educator at the University of Nebraska-Lincoln, from 2015 to 2016, prices dropped 10% to 15% on generics. “I see a lot of guys, at least in northeast Nebraska, using generics now.”

One example: Bifenthrin EC formulations run one-third of the cost of FMC’s liquid fertilizer ready (LFR) products, although they may come with additional expenses.

According to Jarvi, the active ingredient has run into resistance problems in Nebraska, where it has commonly been used for controlling beetles, Western bean cutworm, and spider mites since the 1990s.

Nebraska growers will likely begin to trade bifenthrin for other products, such as FMC’s Mustang Maxx and Syngenta’s Warrior, but problematically, all are synthetic pyrethroids. “We’re hoping we’re not going to have a lot of cross-resistance,” he says.

Corn rootworm, of course, remains the Corn Belt’s No. 1 pest. It also happens that it, and the soybean aphid, overwinter very well.

Jarvi recommends putting more crops into rotation as the best defense, while he admits that is not a sure bet in places like the Eastern Corn Belt, where rotation-resistant rootworms are present.

Now that rootworm resistance to the Monsanto Cry 3Bb1 protein gene is well known, growers have increasingly opted for double-stacked traits with two different Bts. “That’s holding up for now, but there are some rumblings it’s already not looking as good as it used to . . . . It’s my prediction that the double stack isn’t going to work sooner or later — probably sooner,” Jarvi cautions. “That’s why you have to work rotations in, not only crop rotations but trait and insecticide rotations.”

### **Investigate**

Christa Eilers-Kirk, Technical Market Manager with BASF, reminds growers that doing an investigation of their fields can be hugely beneficial. Don’t take anything for granted.

“Don’t just assume that because you sprayed and still have insects in your field that the product didn’t work,” she says. If you spray a pyrethroid and later notice you have soybean aphids, it doesn’t necessarily mean that the product didn’t work. “If

the aphids have wings, those are migratory, and have moved in after you sprayed. It's something the grower needs to be cognizant of."

Likewise with traits. "Traits are a big deal right now — it's the main way of controlling corn rootworm. Check your traits. Go back, dig up some corn, look at the roots. Is it working? Get a feel for what's working in your area. It's going to be very area-specific," Ellers-Kirk advises.

## **New Products**

Products that are compatible with beneficials are of particular importance right now, as regulatory anxieties around pollinators and resistance escalate. It's the reason Ellers-Kirk is so adamant about good stewardship. Regulatory demands on chemical companies in the past five to 10 years have become such that the entire process is slowed down, and the industry can no longer respond to new issues as they come up in the fields.

"We are not going to be able to quickly turn out new products anymore. That's a thing of the past. So we need to make certain we are using what we have in our toolbox correctly to discourage resistance," she says. This includes rotating modes of action, using the correct rates of application, considering beneficials, and ensuring that the product sprayed is appropriate for the pests in the field at that time.

BASF is launching its safer-handling pyrethroid product, Fastac CS, nationally this year.

For the in-furrow market, FMC and BASF announced they will integrate their market-leading insect and disease protection technologies into new products formulated with FMC's patented LFR technology. For 2017, BASF will launch Manticor LFR in-furrow fungicide/insecticide. FMC will launch Temitry LFR insecticide/fungicide.

The catalyst for the collaboration, says Ekins, is higher demand for insect and disease control combined in the same in-furrow product. He reports "very positive" yield results from FMC's Ethos XB insecticide/fungicide, launched in 2016, when the cold, wet spring translated to high disease pressure in the soil. In a number of instances where the product was used in the field it was the difference between having to replant and not having to replant, he says.

"This is about getting the crop off to the best possible start. Insect protection as we have traditionally thought about it is moving to more complete crop protection with insect and disease products being developed at an increasing rate," Ekins says.

## **Soybean Protection**

Two new products for control of spider mites are newly registered for use on soybeans: Zeal miticide (etoxazole) from Valent, which was labeled for field corn, cotton, and melons, received an expanded label for soybeans this year; and Agri-Mek miticide/insecticide (abamectin) from Syngenta, was launched for mite and insect control on nuts, fruit and vegetables, and soybeans.

The pursuit of the new registration was sought when Valent noticed an increasing demand for a true miticide for soybeans.

"Mite damage in soybeans is prevalent in drought and dry conditions, which for many soybean geographies, is an annual occurrence," says Carlos Granadino, Product Development Manager for Valent.

Dr. Kelley Tilmon, Associate Professor of Entomology at The Ohio State University, says the new registrations are exciting given the very limited existing choices.

## **EPA REJECTS PETITION TO REVOKE CHLORPYRIFOS TOLERANCES**

The Environmental Protection Agency has decided to continue allowing the use of the insecticide chlorpyrifos, stating that the science surrounding human health effects is too uncertain to justify its own proposed ban on food tolerances.

The agency announced the decision late today, two days ahead of a court-ordered deadline. The Natural Resources Defense Council and Pesticide Action Network had petitioned the agency 10 years ago to ban Dow AgroSciences' organophosphate insecticide (tradename: Lorsban), which is used to control a variety of crop pests, including corn rootworm and soybean aphid.

The groups have argued that food residue levels are high enough to pose a risk to the developing brain and nervous system.

But EPA said in its news release that its October 2015 proposal to revoke food tolerances "largely relied on certain epidemiological study outcomes, whose application is novel and uncertain, to reach its conclusions."

An EPA Scientific Advisory Panel convened to examine the epidemiological data used by the agency questioned the agency's use of a Columbia University study that relied on umbilical cord blood data from pregnant women to extrapolate exposure levels for children. The SAP released its report last summer.

"We need to provide regulatory certainty to the thousands of American farms that rely on chlorpyrifos, while still protecting human health and the environment," EPA Administrator Scott Pruitt said. "By reversing the previous administration's steps to ban one of the most widely

"Some of the go-to products for corn and soybean have registration futures that are highly uncertain. One is Lorsban, which is under review, but the other issue with Lorsban is that we've had indications that some spider mite populations are resistant. It's good to have some new miticides on the shelf," she says.

Looking forward, Tilmon says that the North-Central region can expect to have increasing problems with stink bugs in the next several years, most notably the brown marmorated, which is gradually working its way westward. The pest has become an economic problem in some parts of Ohio, she says.

Tilmon also offers a caveat on the soybean aphid, infestations of which have been deemed an every-other-year phenomenon. But 10 years of data attained from aerial trapping of migrating soybean aphids in the Midwest show otherwise, she says. "The every-other-year pattern is breaking down in many places; I no longer trust that. It can be every year, depending on the year and the conditions."

According to Ekins, growers are moving more toward applying insecticide in soybean acres in addition or in lieu of seed treatment. This is where the benefits of a liquid starter system show up. When growers are planting corn and soybean with the same planter, and as they convert to insect-and-disease combination products, they can plant their soybeans while controlling disease in the furrow and reduce or augment seed treatment.

"It is a much more attractive offer to the soybean grower, because they have a lot more issues with disease pressure in the soil than insect pressure in the soil," Ekins says.

(CropLife January 24, 2017)  
<http://www.croplife.com/crop-inputs/insecticides/insecticides-how-to-win-with-a-smaller-arsenal/>

used pesticides in the world, we are returning to using sound science in decision-making – rather than predetermined results.”

The National Association of State Departments of Agriculture (NASDA) was quick to praise the decision.

“By maintaining the Maximum Residue Limits for chlorpyrifos, agricultural use of this important tool will continue, significant disruption of international trade is avoided, and harmonization efforts may continue globally,” NASDA President and Louisiana Commissioner of Agriculture & Forestry Mike Strain said. “As state regulatory partners with EPA, we look forward to continuing to work with the agency to ensure current and future tools are reviewed in a rigorous, scientifically sound, and transparent manner.”

USDA also was pleased. Sheryl Kunickis, director of the department’s Office of Pest Management Policy, said the decision “means that this important pest management tool will remain available to growers, helping to ensure an abundant and affordable food supply for this nation and the world.”

Kunickis also said it was “great news for consumers, who will continue to have access to a full range of both domestic and imported fruits and vegetables,” and added, “We thank our colleagues at EPA for their hard work.”

Chlorpyrifos is used on more than 50 crops, including soybeans, alfalfa, wheat, citrus, fruit, tree nuts, vegetables, sugarbeets and cotton, CropLife America said in a brief filed in the 9th Circuit Court of Appeals. It is “the leading insecticide active ingredient to control a number of different insects in crops, including soybean aphids in soybeans, aphids and armyworm in alfalfa, European asparagus aphid and cutworm in asparagus, corn rootworm and

lesser cornstalk borer in peanuts, and leafrollers and San Jose scale in apples.”

“The public record lays out serious scientific concerns and substantive process gaps in the proposal,” EPA said in its release. “Reliable data, overwhelming in both quantity and quality, contradicts the reliance on – and misapplication of – studies to establish the end points and conclusions used to rationalize the proposal.”

In its order denying the petition, EPA said it has “concluded that, despite several years of study, the science addressing neurodevelopmental effects remains unresolved and that further evaluation of the science during the remaining time for completion of registration review is warranted to achieve greater certainty as to whether the potential exists for adverse neurodevelopmental effects to occur from current human exposures to chlorpyrifos.”

The agency “has therefore concluded that it will not complete the human health portion of the registration review or any associated tolerance revocation of chlorpyrifos without first attempting to come to a clearer scientific resolution on those issues. As noted, Congress has provided that EPA must complete registration review by October 1, 2022.”

In the days leading up to the decision, environmental groups had mobilized to muster support for the proposed tolerance revocation. The Environmental Working Group collected signatures for an online petition, saying that “research has linked chlorpyrifos to nervous system damage, behavioral problems and lower IQ in young children whose mothers were exposed during pregnancy. In adults, low-level exposure to chlorpyrifos can cause nausea, headaches and dizziness. Farmworkers and others who are severely exposed have suffered vomiting, muscle cramps, diarrhea, blurred vision, loss of consciousness and

even paralysis.”(Agri-Pulse March 29, 2017)  
<https://www.agri-pulse.com/articles/9113-epa-rejects-petition-to-revoke-chlorpyrifos-tolerances>

## **RESEARCHERS TESTING FUNGAL BIOPESTICIDE FOR BED BUG CONTROL**

A fungal biopesticide that shows promise for the control of bed bugs is highly effective even against bed bug populations that are insecticide resistant, according to research conducted by scientists at Penn State and North Carolina State universities.

The study suggests that Aprehend, a mycoinsecticide developed at Penn State, likely will provide an important new tool for managing bedbug infestations, which have surged in recent years.

Nina Jenkins, senior research associate in entomology, College of Agricultural Sciences, Penn State, and her team have been working with entomopathogenic fungi, which have demonstrated effectiveness against other public-health pests, such as malaria vectors, cockroaches and house flies. Researchers also have shown fungal pathogens to be effective against insecticide-resistant mosquitoes.

"The goal of this study was to evaluate the efficacy of this product on an insecticide-susceptible lab strain of bedbug, and compare that to its effect on three field-collected strains known to be resistant to insecticides," Jenkins said. "We also compared mortality of these four bedbug strains after exposure to either a commercial pyrethroid insecticide or Aprehend."

The result was the development of Aprehend, a patent-pending compound based on *Beauveria bassiana*, a natural fungus that causes disease in

insects. Previous studies have shown that the formulation can be applied as a long-lasting barrier treatment. Bedbugs that cross the barrier acquire fungal spores and go on to spread these among insects that remain in their harborages, resulting in greater than 95 percent mortality within a week.

The nonresistant bedbugs exposed to fabric treated with chemical insecticide sustained similarly high mortality rates. However, only 16 percent to 40 percent mortality was reached among the field-collected, resistant strains of bedbugs 14 days after exposure.

"In two of these resistant strains, survivorship after insecticide treatment was not significantly different from the control group," Jenkins said. (PCT Online, March 29, 2017)

<http://www.pctonline.com/article/bed-bug-research-fungal-biopesticide/>

## **TERMINIX RELEASES TOP 15 TERMITE INFESTED CITIES LIST**

On March 20, Terminix released its ranking of the 15 most-infested cities, and revealed that residents of Mobile, Ala. reported the most cases of termite infestations in 2016, followed by three cities in Texas and four in Florida.

In addition to the warmer weather, the high number of infestations in Florida can also be attributed to the presence of six invasive termite species. As you've previously reported, researchers from the University of Florida predict half of South Florida's structures could be impacted by termite damages by the year 2040.



See below for a look at the top 15 cities.

1. Mobile, Ala.
2. San Antonio, Texas
3. Memphis, Tenn.
4. Tampa, Fla.
5. Miami, Fla.
6. Los Angeles, Calif.
7. Orlando, Fla.
8. Jacksonville, Fla.
9. Dallas, Texas
10. Baton Rouge, La.
11. Houston, Texas
12. Oklahoma City, Okla.
13. San Diego, Calif.
14. Philadelphia, Pa.
15. Little Rock, Ark.

Homeowners can help reduce the risk of termites accessing their homes through proper yard upkeep, exterior home maintenance and moisture control.

(PCT Online March 20, 2017)

<http://www.pctonline.com/article/terminix-15-most-infested-cities/>

## **EXPERT PANEL SPLIT ON US EPA GLYPHOSATE CANCER ASSESSMENT**

A US EPA scientific advisory panel is unconvinced by the Agency's assessment of the carcinogenicity of the herbicide, glyphosate, and split on whether to endorse its conclusion that the herbicide is "not likely" to cause cancer in humans. The final report from the EPA's FIFRA Scientific Advisory Panel (SAP) also finds that the Agency failed to follow its own cancer guidelines, particularly its "use of historical control data and statistical testing requirements".

The EPA convened the review committee last year to try and diffuse controversy over its assessment of glyphosate's carcinogenicity, asking the panel to review the work of the Agency's Cancer Assessment Review Committee (CARC). The charge to the panel called for it to review the CARC assessment of glyphosate with specific instructions to assess how it considered more than 250 studies and to examine the data used for each line of evidence and weight-of-evidence analysis.

Some members agreed with the CARC conclusion but others found that the Agency "did not provide convincing evidence of a lack of carcinogenic effects". Critics on the panel called on the EPA to replace its characterisation of "not likely carcinogenic to humans" and with the description of "suggestive evidence of carcinogenic potential". Other members disagreed with that recommendation but also did not like the EPA's description, "preferring a descriptor such as 'no credible evidence of carcinogenicity' or 'equivocal'".

The mixed review is not a surprise as divisions among the 15 panel members were apparent during the four-day meeting of the SAP in December. The disagreements prompted SAP member Kenneth Portier, vice-president of the American Cancer Society's Statistics and Evaluation Center, to declare "rarely does a panel disagree as much as this one".

Given the divisions among the panel, it is uncertain how much stock the EPA will put in its recommendations. The Agency intends to publish its draft glyphosate human health and ecological risk assessments this year. The EPA began its mandatory 15-year review of glyphosate in 2009 with the original goal of completing the re-registration process by 2015.

The final SAP report came only a day after the risk assessment committee of the European Chemicals Agency (ECHA) concluded that glyphosate should not be classified as a carcinogen. The ECHA conclusion echoes similar opinions made by the European Food Safety Authority and the FAO/WHO Joint Meeting on Pesticide Residues. (Pesticide & Chemical Policy/AGROW, March 20, 2017)

## **ENVIRONMENTAL GROUPS CALL ON AMAZON TO REMOVE POLLINATOR-TOXIC PRODUCTS FROM WEBSITE**

Over 30 environmental and public health groups, joined by several environmentally responsible businesses, sent a letter today to Amazon CEO Jeff Bezos, urging him to remove products linked to pollinator declines from the retailer's website. Citing federal inertia that has allowed pollinator declines to continue at alarming rates, the groups pointed to the need for action from private companies to combat known threats to pollinators, in this case a class of pesticides known as neonicotinoids.

Neonicotinoid pesticides are found in many home and garden products, and have been determined by the U.S. Environmental Protection Agency to be highly toxic to bees. According to the letter, "independent scientific literature associates the use of bee-toxic pesticides, particularly neonicotinoids, with impaired pollinator health and

decline, including reduced populations of native bees, butterflies and other beneficial organisms."

The groups call on Amazon "to use its influence as the largest online retailer in the U.S. to lead marketplace change and protect pollinators by prohibiting the sale of pollinator-toxic neonicotinoid pesticide products, educating consumers on the availability of safer, "pollinator friendly" alternatives."

This ask comes on the heels of last week's decision by the federal government to officially list the rusty patch bumblebee – the first ever bumblebee, and first bee overall in the continental U.S. – as an endangered species. Without swift and meaningful action by companies like Amazon, these environmental groups allege that the rusty patch bumblebee may be the "canary in the coalmine" for larger and further reaching pollinator losses.

"America's beekeepers continue to experience hive losses of up to 50%, losses that are unsustainable and are driving many beekeepers out of the industry," said Bonnie Raindrop, Legislative Chair of the Central Maryland Beekeepers Association. "We need healthy pollinators for one in three bites of food we eat, however many produce farmers are reporting compromised crop yields due to lack of pollination. The Big Ag and pesticide lobbies are too influential for us to count on the government to take appropriate action, so we are counting companies like Amazon to step up and lead."

"With the Trump Administration set on dismantling the EPA, environmental groups and their supporters are turning to the private sector to lead the way on protecting pollinators and the countless ecosystem services they provide," asserted Jay Feldman, Executive Director of Beyond Pesticides, the organization that led the sign-on letter.

According to Dan Raichel, Staff Attorney at the Natural Resources Defense Council (NRDC), "Putting an end to the bee crisis is going to take everyone's help. Amazon can be a big part of the solution by ensuring that when their shoppers want

to beautify their homes and gardens, they aren't buying products that harm bees."

"The marketplace is shifting. More than 65 garden retailers have made commitments to restrict the use of bee-killing pesticides on products and plants," said Tiffany Finck-Haynes, food futures campaigner at Friends of the Earth. "It's time for Amazon to step-up to the plate and follow other industry leaders by making a commitment to stop selling bee-killing pesticides."

The groups say that removing neonicotinoid pesticide products from Amazon's website is imperative to protecting natural resources, specifically bees, butterflies and birds, as well as promoting water quality and soil health. By taking action, Amazon would be joining with other retail leaders, such as Home Depot and Lowe's that have committed to stop selling neonicotinoid products and treated plants at their stores.

The letter was accompanied by a product list identifying over 100 products sold on Amazon's website that contain bee-toxic neonicotinoid pesticides.

Beyond Pesticides maintains that private section action is necessary in light of the shortcomings of federal action in the U.S. to protect pollinators. People can pledge to stop using neonicotinoids and other toxic pesticides by signing the pollinator protection pledge today. Beyond Pesticides advocates the adoption of organic land management practices and policies by local communities that eliminate the use of toxic pesticides.

All unattributed positions and opinions in this piece are those of Beyond Pesticides.

(Beyond Pesticides, March 30, 2017)  
<http://beyondpesticides.org/dailynewsblog/2017/03/environmental-groups-call-amazon-remove-pollinator-toxic-products-website/>

## **MAN BURNS DOWN PARENTS' HOME TRYING TO ELIMINATE ANTS**

A Maine man accidentally torched his parents' home over the weekend while trying to exterminate ants, Yahoo News reported.

Investigators with the state fire marshal's office said this week that 21-year-old Devon Doucette was trying to incinerate the ants with wooden matches when he inadvertently ignited combustible material that caused flames to rapidly envelope the Old Orchard Beach home.

While Doucette escaped with his life and his parents weren't home at the time of the blaze, unfortunately three family pets perished in the fire, Yahoo News reported.(PCT Online March 23, 2017)

<http://www.pctonline.com/article/man-burns-house-exterminating-ants/>

## CEU Meetings

Date: April 26, 2017 8:30 am to 12:30 pm

Title: OSU Elevator Workshops

Location: Shawnee Milling Shawnee OK

Contact: Edmond Bonjour (405) 744-8134

Course #: OK-17

CEU's:	Category(s):
TBD	7C
TBD	11A
TBD	10

Date: April 26, 2017 5:30 pm to 9:30 pm

Title: OSU Elevator Workshops

Location: Garfield County Extension Enid OK

Contact: Edmond Bonjour (405) 744-8134

Course #: OK-17

CEU's:	Category(s):
TBD	7C
TBD	11A
TBD	10

Date: April 27, 2017

Title: OSU Elevator Workshops

Location: Branding Iron Restaurant Clinton OK

Contact: Edmond Bonjour (405) 744-8134

Course #: OK-17

CEU's:	Category(s):
TBD	7C
TBD	11A
TBD	10

Date: May 2, 2017

Title: 2017 CSE Recertification Seminar

Location: Quality Inn & Suites Salina KS

Contact: Mindi Carlson. (785) 827-8215

Course #: OK-17

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

CEU's:	Category(s):
8	7C
8	10

## ODAFF Approved Online CEU Course Links

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-ceuhome1.htm>

## ODAFF Test Information

Pesticide applicator test sessions dates and locations for April/May are as follows:

April		May	
10	OKC	4	Enid
12	Lawton	8	OKC
13	Tulsa	11	Tulsa
24	OKC	22	OKC
27	Tulsa	25	Tulsa

Altus: SW Research & Extension Center  
16721 US HWY 283

Atoka: KIAMICHI TECH CENTER 1301  
W Liberty Rd, Seminar Center

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.

McAlester: Kiamichi Tech Center on  
Highway 270 W of HWY 69

OKC: Arcadia Conservation Education  
Building 7201 E 33<sup>rd</sup> St. Edmond  
OK (**New Location**)

Tulsa: NE Campus of Tulsa Community  
College, (Apache & Harvard)  
Large Auditorium

**Pesticide Safety  
Education Program**