

PESTICIDE REPORTS

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



February, 2016

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NEWSLETTER RENEWAL

It is time to renew your subscription to the *Pesticide Reports* newsletter. To do so, complete the instructions at the end of this edition. Either e-mail or mail your renewal to us. If you do not respond we will have to drop you from the mailing list.

OSU Extension personnel are automatically renewed and do not have to send back the renewal form.

FEBRUARY TEST HELP SESSIONS

The OSU Pesticide Safety Education Program will conduct the first test help sessions for 2016 in February. The workshops will be held February 16th in Oklahoma City and February 17th in Tulsa.

The Oklahoma City Test help session will at the OSU-OKC Agriculture Resource Center (ARC) 400 N Portland. The Tulsa session will be at the Tulsa County Extension Office at 4116 E. 15th.

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 2016. Please go to the website below for more 2016 dates.

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

EPA OPENS PUBLIC COMMENT PERIOD ON THE FIRST OF FOUR PRELIMINARY RISK ASSESSMENTS FOR INSECTICIDES POTENTIALLY HARMFUL TO BEES

The U.S. Environmental Protection Agency (EPA) has opened the 60-day public comment period for its preliminary pollinator risk assessment for imidacloprid, a neonicotinoid insecticide, in a Federal Register notice published today. After the comment period ends, the EPA may revise the pollinator assessment based on comments received

and, if necessary, take action to reduce risks from the insecticide.

The preliminary risk assessment identified a residue level for imidacloprid of 25 ppb, above which effects on pollinator hives are likely to be seen and below which effects are unlikely. These effects may include reduction in numbers of pollinators as well as the amount of honey produced.

The imidacloprid assessment is the first of four preliminary pollinator risk assessments for the neonicotinoid insecticides. Preliminary pollinator risk assessments for three other neonicotinoids, clothianidin, thiamethoxam, and dinotefuran, are scheduled to be released for public comment in December 2016.

A preliminary risk assessment for all ecological effects for imidacloprid, including a revised pollinator assessment and impacts on other species such as aquatic and terrestrial animals and plants will also be released in December 2016.

EPA encourages stakeholders and interested members of the public to visit the imidacloprid docket, review the risk assessment and related documents, and submit comments. All comments submitted will be accounted for in our final risk assessment. The risk assessment and other supporting documents are available in the docket at: <http://www.regulations.gov/#!docketBrowser;rpp=25;so=DESC;sb=postedDate;po=0;dct=SR;D=EPA-HQ-OPP-2008-0844>.

EPA is also planning to hold a webinar on the imidacloprid assessment in early February. The times and details will be posted on the How We Assess Risks to Pollinators web page. (EPA, January 15, 2016) <http://www.epa.gov/pesticides/epa-opens-public-comment-period-first-four-preliminary-risk-assessments-insecticides>

ASA, OTHER FARM GROUPS PUT FULL COURT PRESS ON EPA OVER ENLIST DUO DEBACLE

In a letter to EPA Administrator Gina McCarthy today, the American Soybean Association (ASA) worked with a coalition of major farm groups in pressing the agency to withdraw its request to vacate the registration for Dow's Enlist Duo herbicide, highlighting the urgent need for new modes of action to tackle resistant weeds on farms across the country.

"U.S. growers have an urgent need for a new mode of action as these regulatory delays have exacerbated the proliferation of hard-to-control weed populations. These delays are necessitating more intense weed control practices that complicate environmental management," wrote the groups in the letter. "Herbicide tolerant cropping systems allow growers to more efficiently use active ingredients for weed control while providing environmental benefits like reduced tillage that improves soil health and limits nutrient run-off. Additional herbicide modes of action will help proactively manage weed herbicide resistance."

The groups cited the already-exhaustive review undertaken by both USDA and EPA on the Enlist family of products.

"Among the many new requirements for registration of Enlist Duo at EPA was an unprecedented review of the potential effects of the product on threatened and endangered species. After an exhaustive state-by-state review, EPA concluded that use of Enlist Duo in accordance with the product label, which imposed a 30-foot wind directional buffer zone, would have no effect on threatened and endangered species. This review took place on a product that simply combines two herbicides that have each

been on the market for decades..." wrote the groups.

The groups also took issue with EPA's reference to additional and new data in its decision to reevaluate Enlist Duo.

"There will always be new information to be considered about products EPA has registered. Congress has recognized this, and included in FIFRA several vehicles for reviewing products. But none of these vehicles authorize the agency to withdraw a previously approved product in the absence of an 'imminent hazard,'" wrote the groups. "... No one has suggested that the information EPA now is considering with Enlist Duo comes close to meeting that threshold."

Joining ASA on the letter is the American Farm Bureau Federation, National Corn Growers Association, National Cotton Council and the National Farmers Union. (CropLife January 7, 2016) <http://www.croplife.com/crop-inputs/asa-other-farm-groups-put-full-court-press-on-epa-over-enlist-duo-debacle/>

MONSANTO TAKES LEGAL ACTION TO PREVENT FLAWED LISTING OF GLYPHOSATE UNDER CALIFORNIA'S PROP 65

Monsanto Co. is taking legal action to prevent a flawed listing of the herbicide glyphosate under California's Proposition 65 (Prop 65), which requires the state to maintain a "list of chemicals known to the state of California to cause cancer." The listing of glyphosate would be flawed and baseless because glyphosate does not cause cancer, as has been concluded by the U.S. EPA, the European Food Safety Authority (EFSA) and pesticide regulators around the world. The listing would violate the California and U.S. Constitutions because the state would be ceding the basis of its

regulatory authority to an unelected and non-transparent foreign body that is not under the oversight or control of any federal or state government entity. Monsanto filed the suit against California Office of Environmental Health Hazard Assessment (OEHHA) in California's Fresno Superior Court on January 21.

Indeed, OEHHA, the very state agency that has announced its intention to add glyphosate to the Prop 65 list, determined in 2007, after conducting a rigorous and science-based assessment, that glyphosate was unlikely to cause cancer. In striking contrast, OEHHA now interprets Prop 65 to require the agency to accept the erroneous classification of glyphosate as a "probable carcinogen" by an ad hoc working group of the International Agency for Research on Cancer (IARC), based in Lyon, France, as the sole basis for the proposed listing. This interpretation of Prop 65 is unconstitutional.

Moreover, IARC's own governing documents specifically disavow any policy- or law-making role for its classifications, and it does not intend its classifications to carry the force of law. As stated in IARC's preamble, "These evaluations represent only one part of the body of information on which public health decisions may be based. ... Therefore, no recommendation is given with regard to regulation or legislation, which is the responsibility of individual governments or other international organizations."

"Glyphosate does not cause cancer, so listing glyphosate under California's Prop 65 is not warranted scientifically and would cause unwarranted concern for consumers," said Phil Miller, Ph.D., vice president of regulatory affairs at Monsanto. "Based on the overwhelming weight of evidence, regulatory agencies have concluded for more than 40 years that glyphosate can be used safely. The conclusion from the IARC meeting in France was erroneous, non-transparent and based on selectively interpreted data. We are bringing this challenge forward because this intention to list is contrary to science."

Regulatory agencies around the globe such as the U.S. EPA and EFSA evaluate pesticides, including glyphosate, using thorough and robust risk

assessments based on internationally recognized toxicological principles. As required by law, these evaluations consider all relevant scientific data to arrive at a conclusion about whether a pesticide could be carcinogenic. A routine U.S. EPA registration review on glyphosate opened in 2009 and remains underway.

Since the initial announcement of the IARC meeting's classification in March 2015, multiple regulatory bodies have publicly affirmed that glyphosate does not cause cancer:

- U.S. EPA: "Our review concluded that this body of research does not provide evidence to show that glyphosate causes cancer, and it does not warrant any change in EPA's cancer classification for glyphosate." U.S. EPA, Statement from Carissa Cryan, Chemical Review Manager, 2015 (in reference to 55 epidemiological studies evaluated by EPA in 2014). This conclusion was reiterated in testimony by EPA's Deputy Director for Pesticide Programs, William Jordan, before the U.S. Senate Committee on Agriculture, Nutrition and Forestry on Oct. 21, 2015.

- European Food Safety Authority: "Glyphosate did not present genotoxic potential and no evidence of carcinogenicity was observed in rats or mice." European Food Safety Authority, Conclusion on the Peer Review of the Pesticide Risk Assessment of the Active Substance Glyphosate, 2015.

- Canadian Pest Management Regulatory Authority: "In consideration of the strength and limitations of the large body of information on glyphosate ... the overall weight of evidence indicates that glyphosate is unlikely to pose a human cancer risk. This is consistent with all other pesticide regulatory authorities world-wide, including the most recent ongoing comprehensive re-evaluation by Germany. ..." Canadian Pest Management Regulatory Authority, Proposed Re-Evaluation Decision, PRVD2015-01, Glyphosate, 2015.

These regulatory conclusions are consistent with OEHHA's own assessment of glyphosate from 2007, which found, "Based on the weight of the evidence, glyphosate is judged unlikely to pose a cancer hazard to humans."

The members of the ad hoc IARC working group were hand-picked and conducted their assessment in a non-transparent process that is not accountable to the laws or governments of the United States or the State of California. Unlike regulatory risk assessments, the IARC classification process followed non-standard procedures and selectively included and interpreted only a subset of the data actually available on glyphosate.

“The IARC classification of glyphosate is inconsistent with the findings of regulatory bodies in the United States and around the world, and it is not a sound basis for any regulatory action,” Dr. Miller said. “Glyphosate is an efficient, effective and safe tool for weed control in fields, along roadways and in other environments. We urge the state of California to uphold its own science-based conclusion about glyphosate reached in 2007 and the conclusions of the U.S. EPA and all other pesticide regulators.” (CropLife January 22, 2016) <http://www.croplife.com/crop-inputs/herbicides/monsanto-takes-legal-action-to-prevent-flawed-listing-of-glyphosate-under-californias-prop-65/>

BED BUGS THAT FEED ARE MORE LIKELY TO SURVIVE PESTICIDE EXPOSURE

Researchers from Rutgers University found that bed bugs that were allowed to feed after being treated with insecticides either had greater rates of survival, or they took longer to die than bed bugs that were not allowed to feed after being treated, ESA reports.

Many studies have been done on how effective certain pesticides are when they are applied to bed bugs. However, most have not allowed the bed bugs to take a blood meal after being exposed to pesticides, which can change the mortality rates, according to an article in the Journal of Medical Entomology.

Researchers from Rutgers University found that bed bugs that were allowed to feed after being treated with insecticides either had greater rates of survival, or they took longer to die than bed bugs that were not allowed to feed after being treated, ESA reports.

“Our results indicated that post-treatment feeding significantly reduced or slowed down bed bug mortality,” the researchers wrote. In one case, bed bugs that were unable to feed after being sprayed with an insecticide had a mortality rate of 94 percent. But bed bugs that did feed after being sprayed with the same insecticide had a mortality rate of just 4 percent after 11 days.

This difference is important because most experiments that test the efficacy of insecticides against bed bugs are performed in labs where the bed bugs can’t feed after being exposed. However, in the field, bed bugs can feed after being treated with an insecticide and the reduced or slowed mortality could give them a chance to reproduce. (PCT Online, January 27, 2016) <http://www.pctonline.com/article/bed-bug-top-searches-NPMA>

US PESTICIDE RESIDUES NOT A CONCERN FOR FOOD SAFETY

The USDA's latest survey of pesticide residues on foods finds more than 99% of products sampled had residues below the US EPA's safety levels. The report confirms that pesticide residues "do not pose a safety concern", according to the USDA's Agricultural Marketing Service (AMS).

The findings from the 2014 Pesticide Data Program (PDP) come as little surprise and are nearly identical to the conclusions from the 2013 report on residue levels. “Each year, the Pesticide Data Program uses rigorous sampling and the most current laboratory methods to test a wide variety of domestic and imported foods,” says Ruihong Guo, deputy administrator of the AMS Science and

Technology Program. "Again, the resulting data in this year's report gives consumers confidence that the products they buy for their families are safe and wholesome."

For the 2014 report, the PDP tested 10,619 samples for more than 450 pesticides and reported the monthly results to the EPA and the Food and Drug Administration (FDA). The 2014 samples included fresh and processed vegetables, oats, rice, infant formula and salmon. The PDP is designed for risk assessment purposes and is not aimed at enforcement of tolerance levels. The FDA reported a compliance rate of 97.2% for pesticide residues in domestic food in 2012, the latest year for which data are available.

Residues exceeding the tolerance were detected in 0.36% of the PDP samples tested. The 38 samples with pesticides above tolerance levels included: one sample of bananas, two samples of broccoli, 12 fresh green bean samples, one sample of nectarines, 11 samples of peaches, five samples of strawberries, two samples of summer squash, three samples of tomatoes and one sample of watermelons.

The Right-to-Know Coalition, a pro-GMO labelling group, criticized the PDP for not including information on residues of glyphosate, calling it a "scandal" that the USDA does not test for the widely used herbicide. But the AMS says that the PDP lacks the funds to test for glyphosate. The Program uses multi-residue methods to test for pesticides, but glyphosate cannot be detected with this technique and can only be captured with a much more "resource-intensive method". (Pesticide & Chemical Policy/AGROW, January 13, 2016)

US ENVIROS TO CITE GLYPHOSATE IN MONARCH SUIT

Environmentalists say that they will sue the US Fish and Wildlife Service (FWS) to force it to make a decision on whether to put the monarch butterfly on the federal list of endangered species. The Center for Food Safety (CFS) and the Center for Biological Diversity (CBD) contend that there is ample

evidence that the iconic species needs federal protection and argue that use of the herbicide, glyphosate, is a key reason for its decline. The groups say that the extensive application of the herbicide on genetically modified crops across the US Mid-West has devastated native milkweed, the sole source of food for monarch butterfly larvae.

The CFS and the CBD note that the monarch has declined by some 90% since the mid-1990s and are upset that the FWS has not followed through on its pledge to review the status of the monarch. In late 2014, the Service concluded that a petition filed by the two groups presented "substantial information indicating that listing may be warranted". The FWS noted that the species faced an array of threats far beyond pesticides, including climate change, drought and heat waves, urban sprawl, and logging on its Mexican wintering grounds.

The Service took comments on the concern until March 2015 but has yet to determine if it will list the species. The environmentalists say that the delay runs counter to the Endangered Species Act (ESA) and contend that the FWS is ignoring evidence that monarchs are in peril. Protection under the ESA "will provide a scientific and legal blueprint for the comprehensive protection that the monarch so direly needs", according to George Kimbrell, a CFS senior attorney.

Listing of the species could prompt efforts to restrict GM crops and pesticide use to ensure the insects have adequate habitat across the US, particularly in the farm-heavy Mid-West. But it appears unlikely that federal officials will support such drastic action.

The EPA, which would be required to work with the FWS to protect the monarch if it is listed on the ESA, has already rejected a bid to impose restrictions on glyphosate to aid the butterfly. The Agency denied a petition last July that called for new limits on glyphosate, concluding that it had yet to determine that the herbicide "causes unreasonable adverse effects" on the monarch.

The EPA also solicited comments from stakeholders on a draft framework for possible rules to evaluate and mitigate pesticide impacts on the insect and the milkweed plant. That plan, however, has run into strong opposition from farmers, the pesticide industry and the USDA, all of whom called the EPA's proposed approach for protecting the monarch premature as ill-conceived. Questions remain about the complexity of threats facing the insect and if their numbers are indeed at levels that merit federal protection. (Pesticide & Chemical Policy/AGROW, January 8, 2016)

BED BUGS HAVE DEVELOPED RESISTANCE TO NEONICOTINOIDS, RESEARCHERS REPORT

An article published in the Journal of Medical Entomology is the first to report that bed bugs have developed resistance to neonicotinoids, ESA reports.

An article published in the Journal of Medical Entomology is the first to report that bed bugs have developed resistance to neonicotinoids, or neonics, ESA reports.

Neonics are the most widely used group of insecticides today, and several products have been developed for bed bug control over the past few years that combine neonics with pyrethroids, another class of insecticide.

Dr. Alvaro Romero from New Mexico State University and Dr. Troy Anderson from Virginia Tech collected bed bugs from human dwellings in Cincinnati and Michigan and exposed them to four different neonics: acetamiprid, dinotefuran, imidacloprid, and thiamethoxam. They also applied these neonics to a bed bug colony kept by Dr. Harold Harlan for more than 30 years without any insecticide exposure, and to a pyrethroid-resistant population from Jersey City that had not been exposed to neonics since they were collected in New Jersey in 2008.

Unsurprisingly, the Harlan bed bugs died even when exposed to very small amounts of the neonics. The Jersey City bed bugs fared slightly better, showing moderate resistance to acetamiprid and dinotefuran, but not to imidacloprid or thiamethoxam.

The authors believe that the detection of neonicotinoid resistance in the Jersey City bed bugs, which were collected before the widespread use of neonics, could be due to pre-existing resistance mechanisms. When exposed to insecticides, bed bugs produce “detoxifying enzymes” to counter them, and the researchers found that the levels of detoxifying enzymes in the Jersey City bed bugs were higher than those of the susceptible Harlan population.

“Elevated levels of detoxifying enzymes induced by other classes of insecticides might affect the performance of newer insecticides,” said Dr. Romero.

The bed bugs from Michigan and Cincinnati, which were collected after combinations of pyrethroids and neonicotinoids were introduced to the U.S. market, had even higher levels of resistance to neonics. (PCT Online, January 29, 2016)
<http://www.pctonline.com/article/bed-bugs-neonic-resistance>

SCIENTISTS SCRAMBLE TO HALT SPREAD OF ZIKA INTO THE U.S.

As questions about mosquito-borne Zika virus continue to mount, researchers are trying to find out how much damage Zika might do in the United States and what can be done to try to stop it.

CNN reports on one such research project at the Galveston National Laboratory: “At a lab in Texas, a scientist pipettes 3 milliliters of sheep's blood into a tiny bowl, heats it to 98.6 to replicate the temperature of human blood, and spikes it with the dreaded Zika virus. After covering the dish with a

thin plastic film to simulate human skin, he unleashes dozens of mosquitoes and lets the bugs have at it. And have at it they do. They eat until they're full, their bellies engorged with blood.”

Scott Weaver, scientific director of the lab, told CNN. "There's a lot of work gearing up very fast."

As CNN noted, the stakes are high: Nearly 4,000 babies with a birth defect called microcephaly have been born in Brazil to mothers infected with the Zika virus. These babies have small heads and abnormal brain development, and so far, 46 have died in there. (PCT Online, January 29, 2016) <http://www.pctonline.com/article/Zika-research-US>

INDUSTRY QUESTIONS US EPA'S CHLORPYRIFOS PLAN

The pesticide industry says that the US EPA's proposal to revoke tolerances for the organophosphate insecticide, chlorpyrifos, is unwarranted and reflects a "worrying shift" in Agency policy toward "an unjustified, unexplained, and more precautionary approach" to pesticide regulation.

In scathing comments sent to the EPA, CropLife America (CLA) says that its members are "deeply concerned" about the chlorpyrifos plan and want the EPA to "at its earliest opportunity, confirm that its regulatory process remains grounded in science-based risk assessment".

The Agency proposed to revoke tolerances for chlorpyrifos in October 2015, explaining that its decision centers on the concern that aggregate chlorpyrifos exposures from food and drinking water in "certain watersheds" exceed safety levels set by federal law.

Revoking tolerances would effectively ban agricultural uses of the insecticide and could leave some growers scrambling to find an adequate replacement. US farmers use an estimated 5-6 million lbs (2,268-2,722 tonnes) of the insecticide annually on almonds, apples, citrus fruits, maize, strawberries and other crops.

The EPA's plan came in response to a court order that required the Agency to respond to a petition filed in 2007 by environmentalist groups that argue that the insecticide poses undue risks to human health and should be banned. The US Court of Appeals for the Ninth Circuit has also ordered the Agency to finalize the rule by the end of 2016.

CLA "appreciates the pressure facing EPA in light of the Court-imposed timelines," but worries that the Agency is moving too quickly and is also overestimating the risks from legal uses of chlorpyrifos. "EPA's rush-to-judgment approach appears poised to result in a truncated administrative process and a regulatory decision based on data and analyses that are unsound, incomplete, or both," according to the pesticide industry trade group. "Neither EPA, the public, growers, nor registrants are best served under these circumstances."

CLA's frustration and opposition to the plan add to a wave of criticism from agricultural interests across the US. Nearly 20 organizations have called on the EPA to reconsider its proposal, including groups representing maize, cotton, citrus, pecan, hazelnut, sugar beet and vegetable growers as well several state farm bureaus, the Agricultural Retailers Association and the National Agricultural Aviation Association.

But unlike most of those critics, CLA's comments take specific aim at the scientific rationale behind the EPA's plan. The organization argues that the Agency is not following its own guidelines and is not giving stakeholders adequate time to review and comment on the concerns about chlorpyrifos.

The EPA's "novel approach" to the use of epidemiological studies and "the potential impact of that approach" on the Agency's risk assessment process and regulation of pesticides is "of primary concern", according to CLA. The group contends that the EPA is relying on three epidemiological studies of "questionable validity and relevance, while minimizing and/or excluding a vast body of toxicological and other valid and relevant data".

The proposed revocation rule is also reliant on a drinking water assessment that the EPA has

acknowledged is incomplete, CLA says, adding that the Agency has yet to identify which uses in which areas of the country do or do not pose a risk concern. The EPA is relying on "an as-yet unsubstantiated risk to take the significant step of revoking all tolerances", according to CLA, which criticizes the Agency for taking a "wait and see" approach to providing additional opportunities for interested parties to weigh in on the revocation proposal. The EPA should "strongly reconsider" its approach and provide all stakeholders "with notice, opportunity to comment, and substantive responses on all significant issues raised during this rulemaking process". (Pesticide & Chemical Policy/AGROW, January 12, 2016)

US STATE AG OFFICIALS UPSET WITH POTENTIAL CHLORPYRIFOS BAN

The US EPA's proposal to revoke tolerances for the organophosphate insecticide, chlorpyrifos, is unjustified and should be abandoned, according to the National Association of State Departments of Agriculture (NASDA). In a letter sent earlier this month to the Agency, the NASDA blasts the science behind the proposal and suggests that it violates federal law. The organization says that the EPA should rescind the proposal, retain current uses of the insecticide and "cease any further action in pursuing the revocation of tolerances."

The criticism from the NASDA is sure to sting the EPA. The organization represents state agricultural officials from all 50 states and its members are vital for implementation and enforcement of federal pesticide rules.

The concerns raised by state officials add to a wave of opposition to the EPA plan. The pesticide industry, vegetable producers and groups representing maize, cotton, citrus, pecan, hazelnut, sugar beet growers as well as several state farm bureaus, the Agricultural Retailers Association and the National Agricultural Aviation Association have all called on the EPA to withdraw its proposal.

The Agency announced the plan last October, explaining that its decision centers on the concern that aggregate exposures from food and drinking water in "certain watersheds" exceed safety levels set by federal law.

Revoking tolerances would effectively ban agricultural uses of the insecticide and could leave some growers scrambling to find an adequate replacement. US farmers use an estimated 5-6 million lbs. (2,268-2,722 tonnes) of the insecticide annually on almonds, apples, citrus fruits, maize, strawberries and other crops.

The EPA's plan came in response to a court order that required the Agency to respond to a petition filed in 2007 by environmentalist groups arguing that the insecticide poses undue risks to human health and should be banned. The US Court of Appeals for the Ninth Circuit has also ordered the Agency to finalize the rule by the end of 2016.

But the NASDA contends that the science behind the Agency's proposal is flawed and could undermine the legality of the effort. The organization says that it has "significant concerns" with the EPA's use of a 10x safety factor for infants and children, suggesting that the Agency has overestimated the potential harm from chlorpyrifos. Dow AgroSciences and other pesticide industry interests have raised similar complaints, questioning the quality of the studies used by the EPA to calculate the 10x safety factor.

The NASDA says that the 10x safety factor "has not been made public or vetted by the scientific community". The EPA's "lack of transparency behind this justification for tolerance revocation" is not consistent with either the Food Quality Protection Act or federal pesticide law and "establishes a possible concerning precedent for future regulatory actions", the NASDA argues in its January 5th letter.

CEU Meetings

Date: February 16, 2016

Title: Pinnacle AG/Sanders CEU

Location: Dumas TX

Contact: Robbie Cartrite (806) 934-1152

Course #: OK-15-155

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

Date: February 23, 2016

Title: Univar 2016 South OK Annual CEU Training

Location: Noble Foundation Ardmore OK

Contact: Deb Chambers (918) 630-3222

Course #: OK-16-009

CEU's: Category(s):
4 3A
3 7A
5 10

Date: February 25, 2016

Title: Univar 2016 Annual CEU Training

Location: Clarion Hotel Broken Arrow OK

Contact: Deb Chambers (918) 630-3222

Course #: OK-16-007

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

Date: March 1-2, 2016

Title: OKVMA Spring Training and Trade Show

Location: Reed Center Midwest City OK

Contact: Kathy Markham (918) 256-9302

Course #: OK-16-006

www.okvma.com

CEU's: Category(s):
5 A
5 3A
5 5
5 6
5 10

Date: March 3, 2016

Title: Spring IPM Seminar

Location: Texas A&M Agrilife Center Dallas TX

Contact: Matthew Elmore (979) 952-9219

Course #: OK-16-033

CEU's: Category(s):
3 3A
1 5

ODAFF Approved Online CEU Course Links

Technical Learning College

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

Green Applicator Training

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

All Star Pro Training

www.allstarce.com

Wood Destroying Organism Inspection Course

www.nachi.org/wdocourse.htm

CTN Educational Services Inc

http://ctnedu.com/oklahoma_applicator_enroll.htm

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.state.ok.us/~okag/cps-ceuhome.htm>

ODAFF Test Information

Pesticide applicator test sessions dates and locations for February/March are as follows:

February		March	
2	McAlester	1	Goodwell
4	Enid	10	Hobart
8	OKC	10	Tulsa
11	Tulsa	11	OKC
18	Altus	24	Tulsa
25	Tulsa	29	OKC
26	OKC		

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 33rd St. Edmond
OK (**New Location**)

Tulsa: NE Campus of Tulsa Community

**Pesticide Safety
Education Program**

**RENEWAL FORM TO REMAIN ON OR BE ADDED TO
PESTICIDE REPORT's MAILING LIST**

PLEASE PRINT - THANK YOU!

Name _____

Company/Business Name _____

Address _____

City _____ **State** _____ **Zip Code** _____

E-Mail _____

Please send to: Charles Luper or Kevin Shelton
Pesticide Safety Education Program
127 NRC
Oklahoma State University
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