

# PESTICIDE REPORTS

Division of Agricultural Sciences and Natural Resources • Oklahoma State University

<http://pested.okstate.edu>



## August, 2011

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Pesticide Safety Education Program (PSEP) website at <http://pested.okstate.edu/practical.htm>.

Registration forms can also be downloaded from the website. The next test help will be October 26<sup>th</sup> in Tulsa at the Tulsa County Extension Center.

Registration will start at 8:45 and the program will run from 9:00 am to 12:30 pm. Testing will begin at 1:30 pm.

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

### USDA RESEARCH SHOWS HERBICIDE LOSSES TO VOLATILIZATION GREATER THAN LOSSES TO RUNOFF

USDA Agricultural Research Service scientists have found herbicide losses into the atmosphere through volatilization consistently exceeded losses from field runoff, the ARS News Service reported July 12.

ARS soil scientist Timothy Gish and ARS micrometeorologist John Prueger investigated the herbicides atrazine and metolachlor, which are known to contaminate water. Because the two have low vapor pressures, volatilization was not thought to contribute to this contamination, believed to occur from surface runoff.

### OSU PSEP TEST HELP SESSION

The OSU Pesticide Safety Education Program will hold a testing help session August 24<sup>th</sup> in Oklahoma City. The meetings will be held at the Oklahoma County Extension Center at 930 N Portland.

This testing session will focus on information covered in the core/service tech test and Category 3A Ornamental & Turf. OSU PSEP will also answer any questions over these tests during this session.

Cost of registration is \$30 if received by August 17<sup>th</sup>. Registration will increase to \$50 after August 17<sup>th</sup> or on site (if space available). **ODAFF Testing fees are not included in the registration fee and must be paid separately.** Register online at the

Their 10-year study to monitor both losses from volatilization and runoff was conducted at an experimental field in Beltsville, Md. where local meteorology, air contaminants, soil properties, plant characteristics and groundwater quality could be monitored. They found the herbicides readily volatilized into the air when air temperatures and soil moisture levels increased. They found no increase in volatilization when air temperatures increased but soils were dry. Throughout the study, losses of the two herbicides to volatilization were about 25 times larger than losses from surface runoff. (Pesticide & Chemical Policy, July 15 2011, Volume: 39 Issue: 32)

## **HOUSE COMMITTEE MOVES TO RESTRICT EPA ACTION ON PESTICIDES**

The House Committee on Appropriations approved legislation this week that would restrict EPA's ability to act in several key areas, including pesticide suspensions and cancellations related to endangered species protections, pesticide product brand names and Clean Water Act permits for pesticide use on or near water.

The restrictions were approved July 12 as part of the Fiscal 2012 Interior and Environment Appropriations bill, which funds EPA, among other agencies.

The bill includes language that would amend FIFRA and the Clean Water Act to exempt FIFRA-compliant pesticides from requiring a National Pollutant Discharge Elimination System (NPDES) permit under the Clean Water Act.

Pursuant to a January 2009 ruling by the 6th Circuit Court of Appeals, EPA is developing a permitting system for certain types of pesticide applications to, over or near waters of the U.S. Those states that have their own NPDES authority are developing their own permits, though they can copy EPA. The court's mandate, requiring the permits, goes into effect Oct. 31.

Pesticide stakeholders see the permit as a large and unnecessary time and cost burden, given the protections already afforded by FIFRA, and have been seeking a legislative fix. The appropriations bill language is essentially the same as that contained in stand-alone legislation (H.R. 872) approved by the House. That bill is now in the Senate where Sens. Barbara Boxer (D-Calif.) and Ben Cardin (D-Md.) have placed a hold on it (see *P&CP* July 1, Page 1).

The committee report accompanying the appropriations bill says that requiring NPDES permits for pesticide use "would have far-reaching implications and move beyond the intended application of the Clean Water Act."

### **Endangered Species**

An amendment offered by Rep. Ken Calvert (R-Calif.) and adopted by voice vote, also addresses a significant concern for pesticide stakeholders - restrictions on pesticide use to protect endangered and threatened species.

EPA has been consulting with federal wildlife agencies regarding the impacts of a number of pesticides on endangered and threatened species. In one case, dealing with Pacific salmon and steelhead, the National Marine Fisheries Service is examining the impacts of 37 pesticides on 28 species. So far it has issued four biological opinions covering 24 of the pesticides.

NMFS has found that some of the pesticides jeopardize the continued existence of one or more species and/or their critical habitat. In the BiOps it recommends a number of steps to address that jeopardy.

For the first BiOp, covering chlorpyrifos, diazinon and malathion, in April 2010, EPA asked the affected registrants - Dow AgroSciences, Cheminova and Makhteshim Agan of North America - to voluntarily accept certain restrictions on the use of their products, including buffer zones. They refused and are challenging the validity of the BiOp in federal court.

More than a year later, EPA still has not decided how it will respond to the lack of voluntary compliance, but has indicated that cancelling the pesticides in question is an option.

But Calvert's amendment would preclude that option. It states: "None of the funds made available by this Act may be used to modify, cancel, or suspend the registration of a pesticide registered or reregistered under section 3 or 4 of [FIFRA] in response to a final biological opinion or other written statement issued under section 7(b) of the Endangered Species Act of 1973."

As for other restrictions on EPA's pesticide-related activities, another amendment - offered by Rep. Steven LaTourette (R-Ohio) and adopted by voice vote - would prevent EPA from spending any money to finalize its Proposed Guidance on False or Misleading Pesticide Product Brand Names.

The bill cuts about \$1.5 billion from EPA compared to Fiscal 2011 enacted levels. The bulk of the cuts come from the Clean Water and Drinking Water State Revolving Funds. The Senate Appropriations Committee has yet to vote on its EPA funding bill. (Pesticide & Chemical Policy, July 15 2011, Volume: 39 Issue: 32)

## **MINNESOTA COURT SAYS PESTICIDE DRIFT CAN COUNT AS TRESPASS**

Minnesota Court of Appeals says it can count as trespass under the law when pesticide drifts from one farm to another. The appeals court revived a lawsuit by organic farmers Oluf and Debra Johnson against the Paynesville Farmers Union Cooperative Oil Company. They allege the co-op has repeatedly sprayed pesticides onto other fields that have drifted onto theirs, preventing them from selling their crops as organic.

The decision says no previous Minnesota case has addressed whether unwanted pesticide drift from a targeted field to an adjacent organic farm can constitute a trespass. The appeals court held

Monday that it can under some circumstances. Courts in other states have made similar rulings. The appeals court sent the organic farmers' lawsuit back to a lower court for further action. (AP July 25, 2011)

## **QUESTIONS RAISED ABOUT FDA WORKING TO STRENGTHEN MONITORING OF PESTICIDE RESIDUES ON IMPORTS**

A U.S. firm that helps companies import and market goods regulated by the Food and Drug Administration and other agencies says FDA appears to be stepping up its enforcement at the border of pesticides on food imports. However, other industry sources see no evidence of such heightened enforcement, and the agency itself says the increased scrutiny has been in food supplements and botanical products.

The agency regularly issues "Import Alerts" that offer guidance to field personnel on products that should be subject to special attention due to prior quality violations. These products are often subject to DWPE, or Detention Without Physical Examination; the Federal Food, Drug & Cosmetic Act (FFDCA) gives FDA the authority to refuse entry to regulated articles based on information other than the results of examination of samples. This can be a history of the importation of violative products, or products that may appear violative, or when other information indicates that future entries may appear violative of the FFDCA.

Import Alert #99-05, last updated July 20, lists raw agricultural products that are recommended for DWPE due to illegal pesticide residues. There are more than 500 commodities - offered by specific merchandisers known to have problems with specific pesticides - on the list, and about 56 that have been added this year alone. The most frequent pesticide cited as a "problem" for imported products is permethrin, which is listed more than 100 times; others with more than 30 citations are

methamidophos, monocrotophos, parathion, prochloraz and chlorpyrifos.

Keith Dorschner, entomology program manager for Rutgers' IR-4 minor crop pesticide data project, says it's no mystery why these chemicals would appear most frequently on the alert list. "They're just old products that have been around for many decades; they're off-patent or inexpensive, and they work," he tells *Pesticide & Chemical Policy*. "And people are using them, especially if countries don't have ... a real strong regulatory agency." He says permethrin is a first-generation pyrethroid that can be used on a broad scale of commodities.

Young Lee, a scientist with FDA's Office of Food Safety, tells *P&CP* most pesticide residue violations on imports involve chemicals for which no tolerance is established for that particular commodity, although the chemical is registered with EPA and has tolerances established on other commodities. Import rejections due to pesticide violations range from 2-5%; the most recent available annual report by FDA uses 2008 data and shows detectable pesticides on 27.7% of the import samples and a 4.7% violation rate. Some 86% of the violations were of the no tolerance variety.

### **Looking for violations**

Lee says the agency uses multiresidue testing methodology, which detects about half of the 400 pesticides for which EPA has established tolerances, "as well as pesticides that do not have U.S. tolerances, metabolite impurities and alternation products." FDA uses the multiresidue tests, Lee says, because they can't target a chemical that's unapproved for use on a specific commodity, although if the agency gains intelligence on use, it can conduct specialized surveys.

If FDA needs to look for a specific pesticide, it uses a single residue or selective multiresidue method. "Because they can only detect a handful of pesticides, we use those methods very judiciously," she says. They're employed if the agency knows a certain pesticide is routinely used in a region on crops, or if they have suspicions that have been raised by "past history of violations, and also some

intelligence that we have of some usage information."

In a follow up e-mail, Lee says FDA complements its regulatory monitoring with short-term field assignments to follow up on past problem areas.

But whether FDA is stepping up its work in this area is an open question.

### **Increased enforcement?**

Rick Quinn, an attorney with the legal and consulting firm FDAImports in Columbia, Md., says, "To my knowledge, FDA's investigation of particular pesticides is limited to anecdotal evidence that either comes to them in the press, or comes to them through laboratory analysis of specific entries of particular commodities, and then trends develop and they try to be ahead of those trends." Quinn says FDA examines trade data to match raw and processed foods with countries of origin, and with their agricultural practices to determine which pesticides are commonly used there. "Because there are so many commodities that could potentially be subject to pesticides, they're thinking about how to regulate it," he says.

Pointing to the number of pesticide-related Import Alerts, Quinn says although he can't offer an empirical evaluation, FDA's regulation of pesticide residues at the border appears to be increasing. "In our experience, just speaking anecdotally, a lot of stuff gets stopped at the border; the labs take forever to process it; they do a fair bit of pesticide residue testing." (FDA's Lee says test results are supposed to be produced within 24 hours, but 48 hours is the maximum). "Whenever there is a policy debate about adequacy of an analytical standard or the need for refereed samples or disputing FDA lab results, if we have to involve headquarters it takes a long time to resolve because there's a batting back and forth between headquarters wanting to make a statement or not, versus the [FDA] district wanting to exercise discretion on a particular entry, or not," Quinn says.

But Martin Mitchell, president and CEO of Plainview, N.Y.-based food testing company

Certified Laboratories, says his clients do not indicate FDA has gotten more aggressive in testing for residues, and that historically, companies have been able to get their products taken off the 99-05 Import Alert list if five consecutive shipments demonstrate no violative residues, or when the crop year changes. FDA's Lee calls the five shipment requirement the "minimum" and notes companies "have to provide evidence establishing that the conditions that gave rise to the appearance of a violation have been resolved and that there is sufficient basis for the agency to have confidence that future entries will be in compliance."

Ray McAllister, senior director of regulatory policy at *CropLife* America, also says there's no evidence of increases of violative residues for pesticides. "In fact," McAllister tells *P&CP*, "[FDA] maintains a pretty low profile." He says he's seen no indication on FDA's website that they're changing their approach to their residue testing protocols in any way, nor does he think there are any serious attempts to get the FDA looking at imports more actively.

McAllister says, "I think they take their responsibility very seriously, and they have achieved a workable compliance strategy for this. The penalties for exceeding the tolerances, and the no-tolerance residues, are pretty swift and pretty harsh - that is an entire region, or all shipments from a particular shipper or producer, or even all country shipments can be subject to much more frequent sampling and testing if individual violative samples are found."

### **Shifting tests**

As for oversight that is occurring, FDAImports' Quinn says FDA's laboratory standards or levels of detection and quantitation in pesticide residue analysis are constantly changing, and that makes it difficult for importers. Sometimes, he says, a company will import a product because private tests show no pesticide residue, but FDA stops the product and its own lab tests detect residues. Then, "it turns out that the private lab was using a laboratory standard that was made available on FDA's website," he says, noting FDA does not

accredit private labs and therefore does not dictate which tests they should use. "We've had situations where FDA's deviated from commonly accepted laboratory analytical standards and then not made the public aware of it outside the context of the administrative detention of a particular article," Quinn says.

Certified Laboratories' Mitchell acknowledges FDA does not advise the private sector of changes in its testing methods but says he's surprised at the claim FDA is finding residues after products pass private tests. "As a rule, competent laboratories are capable, and demonstrate that they're capable, of seeing that pesticide down to the limit of detection that's approved. The only time you can have that issue is ... theoretically, if the pesticide isn't approved for that particular commodity, zero is allowed, and sometimes we find ourselves chasing zero ... What [FDAImports] seem[s] to be implying is that maybe the FDA is finding it at lower levels than reported by the laboratory, but I'm not aware of that and that would be very unusual," he tells *P&CP*. (*Pesticide & Chemical Policy*, July 22 2011, Volume: 39 Issue: 33)

## **COMPANIES SUE DUPONT OVER HERBICIDE DAMAGE TO TREES**

Three Michigan companies filed a federal class action lawsuit against DuPont last week alleging the company misrepresented the safety of its Imprelis herbicide and concealed or omitted the fact that it causes serious damage to trees.

Washtenaw Acquisition, Polo Fields Golf & Country Club and Polo Fields East filed the complaint July 14 in the U.S. District Court for the District of Delaware. They are seeking class action status for Imprelis customers in Michigan and nationwide. Three more similar lawsuits have been filed with the court.

According to the complaint, Imprelis was registered by EPA in 2010 and in wide use by this past spring. But "applications of Imprelis were followed within weeks by lethal damage to mature landscape trees,

particularly Norway and Colorado spruce, white pines and other evergreens."

By June, damage to such trees "had become widespread across several states," the complaint asserts.

The complaint cites an investigation published this month by the *Detroit Free Press* estimating damages in the millions of dollars from tree deaths across the country, which the plaintiffs estimate at "thousands, if not tens of thousands."

"Meanwhile, the damage to the plaintiffs, the Michigan Class, and the National Class as a result of injury from [DuPont] is mounting with no end in sight, causing the EPA to investigate the possible link to Imprelis," the complaint states.

But while the overall damages may be significant, damages suffered by individuals may be relatively small, making a class action appropriate, the plaintiffs assert. In addition, the case satisfies the procedural requirements for a class action. In particular, the common facts and law of the case with regard to the national class -- including whether DuPont misrepresented Imprelis and concealed or omitted material facts about the product -- predominate over individual issues. The complaint lists somewhat different common issues for the prospective Michigan class but says they also predominate.

The complaint notes that DuPont issued a warning last month to not apply Imprelis where certain types of trees are on or near the property to be treated. But "these warnings came too late for the thousands of golf courses and commercial landscapes featuring valuable, mature trees vulnerable to Imprelis's effects," the complaint states.

The complaint alleges violation of Delaware's consumer fraud statute. DuPont "made the false pretense and misrepresentation regarding the safety of Imprelis and concealed or omitted the fact that Imprelis caused serious environmental damage to trees such as Norway Spruce or White Pine," the complaint states.

It describes in detail the marketing language used by DuPont to promote Imprelis as an environmentally friendly tool to control broadleaf weeds.

The complaint alleges unjust enrichment, and violations of Michigan law on product liability and damage to land. It also alleges negligence. "As the developer and supplier of Imprelis, [DuPont] has a duty to ensure its safety ... [but DuPont] failed to ensure [that] safety... and also failed to provide any warning or instructions with regard to the safety of pine and spruce trees," the complaint states.

The plaintiffs are seeking court orders certifying the Michigan and national class as well as an order awarding damages in whatever amount the court deems proper. (Pesticide & Chemical Policy, July 22 2011)

## **CARDIN SAYS FIFRA INSUFFICIENT TO PROTECT WATERS FROM PESTICIDES**

Sen. Ben Cardin (D-Md.) on Tuesday clarified his opposition to legislation that would exempt FIFRA-compliant pesticide applications from Clean Water Act permitting requirements, explaining that FIFRA only protects against general environmental concerns and not issues related to specific waterways, as the CWA does.

"H.R. 872 is based on the notion that the law governing the licensing of pesticides provides all the environmental safeguards that are necessary. In proponents' view, obtaining a Clean Water Act permit would be duplicative. That is incorrect," Cardin said in remarks on the Senate floor.

"Approval of a pesticide under FIFRA only requires that the chemical 'will not generally cause unreasonable adverse effects on the environment,' he noted, adding, "Clean Water Act permits, on the other hand, are approved based on a pesticide's impact on a specific waterway."

Cardin elaborated: "The localized impact assessment and enforceable discharge limits of

Clean Water Act permits are far better equipped to address water quality issues than FIFRA's nationwide cost-benefit-based assessment. To exempt pesticides from comprehensive regulation would unreasonably compromise the quality of our waterways."

EPA is under a court-ordered Oct. 31 deadline to have a permitting system in place for certain pesticide applications to, over or near waters of the United States. Those states that have their own CWA permitting authority must develop their own permits, although they can copy the EPA permit. Opponents of the new requirement see it as a huge and unnecessary regulatory burden and have been looking to a legislative fix to undo the court's ruling.

H.R. 872, which would provide such a fix, passed the House March 31 by a comfortable 292-130 margin and was approved by the Senate Agriculture Committee June 21, but Sen. Cardin and Sen. Barbara Boxer (D-Calif.) subsequently put a hold on the bill.

According to Cardin, "H.R. 872 simply goes too far, providing blanket exemptions and ignoring the real water quality problems that pesticides are causing in America's waters today." Cardin pointed in particular to pesticide pollution in the Chesapeake Bay and said it has been linked to fish kills and abnormalities. "Even at levels that allow for the product to be registered, pesticides may cause health problems in fish, amphibians and other aquatic species," he noted.

He also noted that 1,800 waterways in the U.S. are known to be impaired due to pesticide pollution and said limited sampling suggests the number is much higher.

An industry source tells *Pesticide & Chemical Policy* that Senate Majority Leader Harry Reid (D-Nev.) has told Senate Agriculture Committee Chair Debbie Stabenow (D-Mich.) to work out any differences with Cardin and Boxer and then get back to him. Reid does not plan to circumvent the hold and bring the bill up for a vote unless a deal

can be reached among Boxer, Cardin and supporters of the bill.

Sen. Boxer's office did not respond to a request for comment seeking more details on her concerns and any discussions that may be occurring to address those concerns, but both she and Cardin believe the bill should be considered by the Senate Environment and Public Works Committee. Boxer chairs the committee, and Cardin heads its Water and Wildlife Subcommittee.

Sen. Cardin's office also did not respond to a request for comment on any negotiations. But the industry source tells *P&CP* there has been one meeting so far between Stabenow's staff and Cardin's staff to discuss the bill and Cardin's concerns, with another staff meeting expected sometime soon, eventually leading up to a member-to-member meeting.

Cardin "clearly doesn't understand FIFRA and all the protections it has," the source says, adding that farm groups, pesticide manufacturers and other supporters of the bill do not want to see any changes to it to get Cardin's support. A trade-off may be necessary to secure his support, but that could come with other legislation, such as the next farm bill, the source tells *P&CP*. Stabenow want to address Cardin's concerns but not in a way that hurts H.R. 872, he adds.

As for Boxer, "she is where she is as far as jurisdiction," the industry source says, doubtful that compromise is possible with her on that issue. But he sees Cardin as the key player whose concerns must be addressed. If they can make Cardin happy, they can make progress on the bill, notwithstanding Boxer's jurisdictional concerns, he says.

"We understand that individual senators have concerns, and we intend to address those one at a time in an effort to build the necessary support to move H.R. 872," adds Beau Greenwood, executive vice president of government relations and public affairs at CropLife America.

Greenwood and the industry source reiterate concerns that the permit will be duplicative and not

increase environmental protection. Under FIFRA, aquatic pesticides are evaluated for impacts on water quality and water species, the industry source notes. But Cardin contends that's not enough.

"Clearly, the nation has a problem with pesticide pollution in our waters that needs to be addressed. The courts have said so, and scientific data reinforce that conclusion. That doesn't mean that every backyard application of a weed-killer needs a Clean Water Act permit. Providing targeted exemptions of *de minimis* users of pesticides makes good sense," he said in his remarks on the floor.

According to Cardin, backyard applicators and local lawn care companies should be exempt from the permit, and agricultural applications to land should continue to be exempt. In addition, emergency applications to control disease carrying insects and other pest infestations should be exempt.

"Permits should be easy to obtain and impose minimal monitoring, recordkeeping and reporting requirements," he said, adding, "I support a more balanced approach." (Pesticide & Chemical Policy, July 22 2011, Volume: 39 Issue: 33)

## **BED BUG TREATMENT GONE AWRY CAUSES \$4.5 MILLION EDMONTON BLAZE**

EDMONTON - Trying to quell an infestation of bed bugs led to the multi-million dollar fire that forced scores of people from their homes. The \$4.5-million fire broke out in downtown Edmonton on July 12.

About 50 residents were not allowed back in their suites after the blaze.

Investigators say the fire was sparked by a propane-fuelled heater being used to exterminate an infestation of bed bugs in a fourth-floor suite.

The tally includes damage to a neighboring mosque and apartment building.

The investigation continues.

Source: [Toronto Star](#)

## **RENTAL COMPANY SUED OVER BED BUGS**

DAYTON, Ohio - Three Dayton roommates sued a popular rental chain, claiming that bed bugs came along with their merchandise, [WDTN.com reports](#).

The plaintiffs claim they rented a couch from Rent-A-Center. They say it was infested with bed bugs when it arrived.

The roommates say they had to hire an exterminator and toss many possessions.

The lawsuit alleges that Rent-A-Center was negligent and caused emotional distress.

Their lawsuit is asking for damages to be determined at trial.

Source: [www.wdtm.com](#)

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## In-State CEU Meetings

### Date: August 3 2011

Title: Fumigation Safety & Stewardship  
Workshop

Location: Oklahoma City

Contact: Donetta Kuhle 610-372-9700

Course #: OK-11-085

CEU's:                   Category(s):

5                           7c

5                           10

### Date: August 18 2011

Title: CTN Education Program  
Termite Biology

Location: Oklahoma City

Contact: Tommy Kezar 512-829-5114

Course #: OK-11-029

CEU's:                   Category(s):

1                           7b

1                           10

Title: CTN Education Program  
Spiders & IPM

Location: Oklahoma City

Contact: Tommy Kezar 512-829-5114

Course #: OK-11-030

CEU's:                   Category(s):

1                           7a

1                           10

Title: CTN Education Program  
Reduced Risk Pesticides

Location: Oklahoma City

Contact: Tommy Kezar 512-829-5114

Course #: OK-11-031

CEU's:                   Category(s):

1                           All

Title: CTN Education Program  
Risk Mitigation for Rodenticides

Location: Oklahoma City

Contact: Tommy Kezar 512-829-5114

Course #: OK-11-032

CEU's:                   Category(s):

1                           7a

1                           10

Title: CTN Education Program  
IPM for Spider Mites

Location: Oklahoma City

Contact: Tommy Kezar 512-829-5114

Course #: OK-11-033

CEU's:                   Category(s):

1                           1A

1                           3A

1                           3B

1                           3C

1                           10

Title: CTN Education Program  
New Herbicides for Turf

Location: Oklahoma City

Contact: Tommy Kezar 512-829-5114

Course #: OK-11-034

CEU's:                   Category(s):

1                           3A

1                           10

### Date: August 29-30 2011

Title: Land O'Lakes Principles of Custom  
Applicators

Location: Wes Watkins Center Stillwater OK

Contact: Mary Waschek 952-997-7116

Course #: OK-11-086

CEU's:                   Category(s):

10                        1A

10                        10

**Date: September 20-21 2011**

Title: OKVMA Training & Trade Show

Location: Hard Rock Hotel Catoosa OK

Contact: Joe Osborne 918-256-9302

Course #: OK-11-078

CEU's:                   Category(s):

4                         Aerial

5                         3A

4                         5

6                         6

6                         10

## ODAFF Approved Online CEU Course Links

Wood Destroying Organism Inspection Course

[www.nachi.org/wdocourse.htm](http://www.nachi.org/wdocourse.htm)

All Star Pro Training

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

CTN Educational Services Inc

[http://www.ctnedu.com/oklahoma\\_applicator.html](http://www.ctnedu.com/oklahoma_applicator.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.state.ok.us/~okag/cps-ceuhome.htm>

## ODAFF Test Information

Pesticide applicator test sessions dates and locations for August /September 2011 are as follows:

August		September	
1	OKC	7	Altus
11	Tulsa	8	Tulsa
18	Enid	12	OKC
22	OKC	22	Tulsa
25	Tulsa	28	OKC

Altus:                   Western OK State College  
2801 N Main, Room A23

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, Annex Rm.  
920 S. Sheridan Road.

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

OKC:                   Oklahoma County Extension Office,  
930 N. Portland.

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

**Pesticide Safety  
Education Program**