OKLAHOMA COOPERATIVE EXTENSION SERVICE

PESTICIDE REPORTS

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

September, 2013 CHEM

OSU FUMIGATION WORKSHOP

A Fumigation workshop will be held September 19 in Stillwater. The workshop will be held at the OSU Stored Products Research and Education Center (SPREC). The workshop will run from 8:30 a.m. to 2:30 p.m. Two CEU's will be requested for Category 7C and 10 for this workshop.

Registration cost is $75 if pre-registered by September 6th. Registration cost after September 6th or on site will be $100. Registration forms and online registration can be found at http://pested.okstate.edu/html/practical.htm.

For more information contact Dr. Carol Jones at 405-744-6667.

FUMIGATION PRACTICAL REMINDER

The last Fumigation Practical for 2013 will be held September 24th in Stillwater. Applicators wanting to be certified in category 7C to do fumigations must complete the Fumigation Practical School to become certified. The Practical School is only available to individuals that have successfully passed the core and 7C written examinations first. Register at http://pested.okstate.edu/html/practical.htm.

NEW PESTICIDE LABELS WILL BETTER PROTECT BEES AND OTHER POLLINATORS

In an ongoing effort to protect bees and other pollinators, the U.S. Environmental Protection Agency (EPA) has developed new pesticide labels that prohibit use of some neonicotinoid pesticide products where bees are present.

"Multiple factors play a role in bee colony declines, including pesticides. The Environmental Protection Agency is taking action to protect bees from pesticide exposure and these label changes will further our efforts," said Jim Jones, assistant administrator for the Office of Chemical Safety and Pollution Prevention.

The new labels will have a bee advisory box and icon with information on routes of exposure and spray drift precautions. Today's announcement affects products containing the neonicotinoids imidacloprid, dinotefuran, clothianidin and thiamethoxam. The EPA will work with pesticide manufacturers to change labels so that they will meet the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) safety standard.

In May, the U.S. Department of Agriculture (USDA) and EPA released a comprehensive scientific report on honey bee health, showing scientific consensus that there are a complex set of stressors associated with honey bee declines, including loss of habitat, parasites and disease, genetics, poor nutrition and pesticide exposure.

The agency continues to work with beekeepers, growers, pesticide applicators, pesticide and seed companies, and federal and state agencies to reduce pesticide drift dust and advance best management practices. The EPA recently released new enforcement guidance to federal, state and tribal enforcement officials to enhance investigations of bee kill incidents.

More on the EPA's label changes and pollinator protection efforts:
http://www.epa.gov/opp00001/ecosystem/pollinator/index.html

View the info-graphic on EPA's new bee advisory box:
http://www.epa.gov/pesticides/ecosystem/pollinator/bee-label-info-graphic.pdf

(EPA August 15, 2013)
http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/c186766df22b37d485257bc8005b0e64!OpenDocument

US CALL FOR MORE CONTROLS ON GM CROP TRIALS

A coalition of US environmentalists, organic farming groups and others has called for a moratorium on trials of genetically modified wheat and for tighter regulation of GM crop trials. The call follows the detection of an unapproved GM wheat line (MON71800) on a farm in Oregon earlier this year (*Agrow* No 665, p 11). Investigations by the USDA's Animal and Plant Health Inspection Service have since shown that it was an isolated incident (*Agrow* No 667, p 10).

Over 150 organizations put their names to a letter from the Organic Seed Alliance and the Rural Advancement Foundation International to Agriculture Secretary Tom Vilsack last month calling for improvements in the USDA's oversight of GM crop trials. They also want a halt to further GM wheat trials at least until the Oregon investigation is complete.

The letter calls for mandatory contamination prevention requirements for GM crop trials and active monitoring and testing to ensure compliance. Before the USDA approves a notification or permit for field trials it should require the applicant to submit: written containment protocols; a statement of financial responsibility in the event of an unauthorized release; and DNA sequences of the gene and transformation event used in trials to allow

the USDA to develop tests for identifying any suspected unauthorized releases. The Oregon incident showed that appropriate tests are not always readily available, the groups point out.

They also want disclosure to nearby farms of the locations of GM crop field trials. The lack of such information means that farmers never know whether to take their own precautions or how to test their crops if they needed to. "The lack of public disclosure shows our laws and regulations favor the protection of industry trade secrets over the protection of farmers from market disruption and losses," the letter states.

The groups want the USDA to evaluate the commercial risks from GM crops. The market reaction to the Oregon contamination discovery shows that the potential market risks of the introduction of GM wheat are "enormous and unavoidable" but the USDA has "no policy or process to evaluate that risk". (Pesticide & Chemical Policy/AGROW, August 23, 2013)

US EPA ASKS COURT TO DISMISS NEONICOTINOID SUIT

The US EPA has asked a federal judge to dismiss a lawsuit challenging the Agency's approval of two neonicotinoid insecticides, arguing that the claims lack merit and should be thrown out on jurisdictional grounds. At issue is a suit brought in March by five environmental groups and several commercial beekeepers in the US District Court for the Northern District of California (*Agrow* No 661, p 16). The complaint seeks an injunction that would bar continued use of clothianidin and thiamethoxam.

The suit centers on 14 claims that the EPA has run afoul of policies and practices that should have prevented the registration of the two pesticides. The plaintiffs contend that the EPA has violated the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), the Endangered Species Act and the Administrative Procedure Act by allowing 2 million pounds (907 tonnes) of clothianidin and thiamethoxam to be used annually on more than a dozen different crops across some 100 million acres (40 million ha). The suit also alleges that the EPA failed to adequately respond to a petition the plaintiffs filed in March 2012 that asked the Agency to suspend its approval of clothianidin.

The Agency, however, contends that the suit essentially fails to identify specific complaints worthy of review by the Court. In its July 31st motion to dismiss the suit, the EPA says that the claims concerning its response to the petition are baseless because the Agency has yet to issue a final response. The EPA has denied the portion of the petition requesting immediate suspension of clothianidin registrations (*Agrow* No 645, p 13), but has yet to respond to the other issues raised, including the legality of the registrations and its alleged failure to consult with federal wildlife agencies regarding the potential impacts to endangered species.

The remaining claims, which largely relate to alleged failures to follow proper FIFRA registration and labeling procedures, either fail to state a claim that can be remedied by the Court or should be dismissed on jurisdictional grounds, the EPA argues. The plaintiffs are expected to file their response to the motion next month.

Intervention debate

In addition to considering the motion to dismiss, Judge Maxine Chesney is also weighing a bid by the industry groups, CropLife America (CLA) and Responsible Industry for a Sound Environment (RISE), to intervene in the case in support of the EPA. CLA and RISE contend that the plaintiffs are attacking the FIFRA process, a move that could add "unnecessary burden and delay" to the registration process, according to the brief they co-filed on July 30th. The industry groups say that they should be allowed to intervene because they have "an interest in defending the validity and finality of their

members' registrations and in defending against an unwarranted expansion of the administrative process".

But the plaintiffs are opposing the motion, arguing that CLA and RISE have mischaracterized the complaint "in an attempt to inflate its legal scope and create the appearance that they satisfy the requirements for intervention." The claims in the complaint are limited to registered clothianidin and thiamethoxam-based products and do not include any other pesticides, they say in their August 12th reply brief.

The plaintiffs note that they did not oppose the intervention of the registrants affected by the suit. Last month, the Court granted the intervention requests of BayerCropScience, Syngenta and Valent USA Corporation. Unlike those three companies, neither CLA nor RISE has any "independent interests beyond their registrant members, making their participation redundant and unnecessary", the plaintiffs contend. (Pesticide & Chemical Policy/AGROW, August 23, 2013)

US STUDY CAUTIONS THAT FUNGICIDES MAY BE CONCERN FOR BEE HEALTH

Exposure to sub-lethal levels of fungicides increases the presence of a gut parasite in commercial honey bees and may be a key factor in the worrying decline of bees across the US, claims a US study by the USDA's Agricultural Research Service and the University of Maryland.

The research team collected pollen samples from honey bees put in fields to pollinate almonds, apples, blueberries, cranberries, cucumbers, pumpkins and watermelons. They detected 35 different pesticides in the sampled pollen, with an average of nine in each sample. Fungicides were the most frequently found chemicals in the pollen samples. The fungicide, chlorothalonil, which is widely used on apples and other crops, was the most common pesticide found by the researchers. Neonicotinoid insecticides were only found in pollen from bees foraging on apples.

After testing for the presence of pesticides, the researchers analyzed how those chemical blends affect bees' susceptibility to the gut parasite, *Nosema ceranae*. The parasite impairs digestion and shortens the life of bees. Honey bees fed pollen that contained chlorothalonil were "almost three times more likely" to be become infected with Nosema than those not exposed to the fungicide, says study co-author Jeff Pettis, head of the USDA's Bee Research Laboratory.

The fungicide, pyraclostrobin, which was found less frequently in the pollen samples, also increased bees' susceptibility to Nosema infection. Miticides used to control varroa mites also harmed the bees' ability to withstand Nosema infections. But beekeepers understand the risks of using miticides and contend that the chemicals are necessary for bee health, says Dr VanEngelsdorp. Miticides compromise bees' immune systems, but the damage is less than it would be if mites were left unchecked, he explains.

"Our study highlights the need to closely look at fungicides and bee safety, as fungicides currently are considered safe and can be sprayed during the bloom on many crops," says co-author Dennis VanEngelsdorp.

The study also shows that more research is needed into how commercial honey bees are exposed to pesticides outside of the fields where they are placed. The research team found that bees deployed to pollinate blueberries, cranberries, cucumbers, pumpkins and watermelons, collected pollen almost exclusively from weeds and wildflowers during the sampling.

The research is part of a broad effort by US scientists and the USDA to figure out what is causing sharp declines in US honeybee populations.

US commercial beekeepers have lost more than five million hives in the past seven years, with losses this year topping 40%.

Scientists have pointed to a variety of factors at play, including poor nutrition, mites, parasites, viruses and pesticide exposure, but have been frustrated in their attempts to find a primary cause of the recent declines.

Details of the study have been published in the journal, PLoSOne.

(Pesticide & Chemical Policy/AGROW, July 26, 2013)

US ENDANGERED FISH SUIT AGAINST EPA RESET

Environmental and fishing groups have amended a lawsuit that alleges the US EPA has failed to safeguard endangered salmon from six insecticides. The move signals their intent to continue pressuring the Agency to take additional steps to ensure legal pesticide uses do not adversely impact species protected under the Endangered Species Act (ESA). The plaintiffs, led by the Northwest Center for Alternatives to Pesticides (NCAP), filed the revised complaint on August 14th with the US District Court for the Western District of Washington.

The original suit was filed in November 2010, alleging that the EPA was violating the ESA by failing to enforce restrictions aimed at protecting listed salmon species from six insecticides. The complaint targets the organophosphates, chlorpyrifos, diazinon and malathion as well as the carbamates, carbaryl, carbofuran and methomyl (*Agrow* No 606, p 16).

In biological opinions (BiOps) released in 2008 and 2009, the National Marine Fisheries Service (NMFS) recommended a number of restrictions to ensure that continued use of the pesticides did not jeopardize the listed species. The restrictions included buffer zones and limits on spraying under certain weather conditions (*Agrow passim*), but the EPA has yet to enact any of the mitigation measures. The plaintiffs want the Court to impose temporary restrictions on the pesticides in question until the EPA takes steps to implement the measures outlined in the BiOps.

The NCAP's suit was stayed last year by Judge Thomas Zilly, pending the resolution of an industry challenge to the 2008 BiOp, which covers the three organophosphates. In February, the appeals court sided with pesticide manufacturers, ruling that the BiOp was poorly crafted and violated federal law. The ruling vacated the BiOp and ordered the NMFS to revise the document (*Agrow* No 659, p 16). The decision prompted the revised complaint, which removes claims dependent on the 2008 BiOp.

But the new filing notes that the February ruling means that the EPA "lacks a valid completed consultation" for diazinon, chlorpyrifos and malathion, adding the claim that the Agency is therefore in violation of the consultation requirements of Section 7 of the ESA for those three insecticides. The suit retains the claim that the EPA has failed to ensure that its ongoing authorization of the three carbamates are not likely to jeopardize the listed salmon, also an alleged violation of the ESA's consultation requirements. In addition, the complaint alleges that the EPA is violating Section 9 of the ESA by allowing the salmon to be harmed or killed by the pesticides in question.

The EPA has until October 11th to file its response to the amended complaint. A coalition of industry interveners, including CropLife America, also has until that date to file a response. (Pesticide & Chemical Policy/AGROW, August 23, 2013)

DRIFT CONTROL: AGRICULTURE'S NEW NORMAL

Developing and practicing mitigation strategies for glyphosate-tolerant systems is the new normal for agriculture. Terms such as sub 105 microns, auxin-responsive, rheology, atomization, humectancy and laser refraction and are now commonplace alongside DRT (drift reduction technology), A.I. (active ingredient) efficacy, wind tunnels, driftable fines, invert suspension and polymers.

New or not, all these terms are related to the same issues: Herbicide-resistant weeds and the off-target drift of herbicide droplets from glyphosate, dicamba and 2,4-D. Additionally, new EPA rules on reducing driftable fines are quickly moving forward.

It's important to recognize the scope of the problem we're dealing with. According to the 2011 USDA NASS report, glyphosate-tolerant acres represented 94% of soybeans, 72% corn and 74% cotton. Farms expanded in the last 10 years, becoming more efficient with less spending on herbicides and more spending on land, spray equipment, aerial applications and harvesting. Farms with 15,000 acres are more common, and herbicide-resistant weeds thrive across the U.S.

Redesigning the sciences behind 2,4-D and dicamba is a significant goal to reduce the incidence of these herbicide-tolerant weeds. Mitigation chemistries, based on auxin-responsive research, include a new 2,4-D formulation and crop-tolerant system from Dow AgroSciences that is pending registration and new dicamba formulations with crop-tolerant systems from BASF and The Monsanto Co., which are also pending registrations.

Dealing With the New Normal

Because resistant weeds must be managed with sustainable practices, the biggest challenge for growers and applicators right now is making sense of it all. Applicator training based on newer research is an ever-changing process and nearly all row-crop growers struggle with these issues. Some growers only know glyphosate-tolerant systems. Other growers, accustomed to pre-genetically-modified crop practices, want to maintain the efficiencies gained with their glyphosate-tolerant systems.

It is important in this discussion to not focus solely on the reduction in driftable fines (generally measured in 105 microns or less). Wilbur-Ellis research has focused on the reduction of driftable fines and the management of VMD (volume meter diameters), along with the subsequent efficacy of products following the inclusion of a DRT adjuvant in the tank mix. Many DRT adjuvants are only designed to reduce drift. The best also ensure that the A.I. reaches the target and provides maximum A.I. performance.

Additionally, most research has focused on ground application. Significant differences exist between DRT efficacies when considering aerial application. First, the higher wind speed creates much higher shear forces on the spray solution as it leaves the nozzle. Second, the gallons of spray solution per acre are drastically reduced, which makes the deposition pattern even more critical to manage.

Blowing In the Wind Tunnel

DRT spray adjuvants are being modified and tested in the field and in wind tunnels. Currently there are three classifications of spray adjuvant chemistries for DRT: Invert suspension, polymer-based and oil-based chemistries. Let's review all three.

Invert Suspension. This unique group is an oil sub-category providing either a suspension of water encapsulated within an oil shell or water surrounded by an oil coating used to minimize the creation of driftable fines (sub 105 microns) after being sprayed through a nozzle tip. Research confirmed by University of Nebraska Wind Tunnel testing shows this adjuvant chemistry to be best in class.

Polymers. These DRT adjuvants are formulated with either synthetic or natural polymers (guar gum) that act to increase the viscosity of the spray solution and affect the rheological profile by producing larger spray particles. Polymer-based adjuvants increase the possibility of spray particles

shattering, increasing drift. They are not effective for applications of glyphosate. Wilbur-Ellis does not recommend the use of polymer-based DRT adjuvants for aerial applications of glyphosate or any other A.I.

Oils. This group includes COC (Crop Oil Concentrate) and MSO (Methylated Seed Oil) technologies. They act as humectants to move the A.I. droplets through the spray nozzle and reconfigure the droplets on the outside to keep the A.I. from evaporating.

Wilbur-Ellis research has reinforced the best practices for DRT require the right mix of spray nozzles (air induction/venturi recommended), spray adjuvants (invert suspension recommended for both air and ground), spray parameters (pressure and speed for air or ground), optimum spray volumes (two to five gallons per acre for air, 10 to 20 gallons per acre for ground) and buffer zones. Wilbur-Ellis encourages applicators, retailers and growers to take the time to become familiar with this new normal for agriculture.

Keywords for DRT

Making sense of the new normal involving DRT and glyphosate-mitigation strategies requires an understanding of the terms involved. Here are some definitions:

Auxin Herbicides refers to the chemical classification of herbicides that mimic auxin, plant growth hormones, and include 2,4-D and dicamba technologies.

Auxin-Responsive Genetic Herbicides are the new 2,4-D herbicide formulation and tolerant crops developed by Dow AgroSciences, and new dicamba herbicide products and crop systems from BASF and The Monsanto Co., all with registrations pending.

Atomization Profile or Droplet Spectra refers to the process of reducing spray solution into tiny particles.

DRT (Drift Reduction Technology) refers to the practice of mitigating pesticide drift to off-target areas, improving the accuracy of applications and minimizing volatilization. Technologies and application practices supporting DRT include spray adjuvants, spray nozzles, application speeds and increased flow rates. Adjuvant products within the DRT spectrum are known as deposition agents, drift control agents, retention agents and drift retardants. DRT is also the name for the EPA-lead initiative to "achieve improved environmental and human health protection through drift reduction by accelerating the acceptance and use of improved and cost-effective application technologies."

Humectancy refers to spray particles ability to retain moisture and maximum active ingredient (A.I.) performance when hitting the target; humectants are frequently used in oil-based spray adjuvants.

Laser Defraction refers to the instrumentation inside wind tunnels that allows researchers to measure actual droplet sizes and develop a profile that will tell the EPA how and where droplets are dispersed.

Maintaining A.I. Efficacy refers to the positive deposition of the active ingredient and its performance within the recommended application rates in the practice and science of drift reduction. Maintaining A.I. efficacy is a key objective for Wilbur-Ellis research for spray adjuvants within a DRT system.

Microns is a unit of length, equivalent to a millionth of a meter; a droplet smaller than 105 microns is considered driftable.

Nozzle Overhaul is the process of upgrading spray nozzles by switching to the latest air induction or venturi nozzles that produce the appropriate droplet size to minimize spray drift.

Rheology or Rheological Profile refers to the study of liquid flow. Newer definitions suggest that rheology is the study of liquid materials that behave or flow in an unusual manner. Spray adjuvants for DRT are studied for their rheological tendencies and positive impact on reducing or eliminating drift and maintaining A.I. efficacy.

Simulated Sprays refers to wind tunnel testing of A.I. and adjuvants. It is important that simulated sprays include both the active ingredient and DRT spray adjuvants. Not all wind tunnels are constructed to allow testing of A.Is.

Spray Parameters refers to limits in setting application speed and wind pressure in a DRT program so that A.I. efficacy is not compromised.

Viscosity refers to the thickness of a fluid and its resistance to flow. In DRT the higher the viscosity of the fluid, the likelier the droplets will shatter when exposed to wind shear.

VMD (Volume Median Diameter) refers to the mean droplet size produced from a nozzle tip, in which one half of the spray volume consists of droplets larger than the mean, and one-half consists of smaller droplets, smaller than the mean.

Wind Tunnel refers to the science of bringing the wind inside to evaluate its power on drift, and includes study of wind velocity, application speeds, nozzle selection and carrier volumes through ground or air application. These are also known as drift tunnels with the recent focus on DRT. University of Nebraska, North Platte is the only commercially-available wind tunnel that is authorized to submit measurement for a DRT star ranking by EPA.(Croplife.com September 3, 2013)

UPDATE OF HUMAN HEALTH BENCHMARKS FOR PESTICIDES IN WATER

The EPA has updated its list of human health benchmarks for pesticides. The EPA develops these benchmarks as screening levels for use by states and water systems in determining whether the detection of a pesticide in drinking water or a drinking water source may indicate a potential health risk. This year, the EPA added 11 new benchmarks to the list, revised 10 of the benchmarks published in 2012 to reflect new scientific information and added cancer effects benchmarks for 40 of the pesticides. To view the revised list of human health benchmarks for pesticides, visitwww.epa.gov/pesticides/hhbp.

In-State CEU Meetings

Date: September 16-18, 2013
Title: OKVMA Fall Conference
Location: Hard Rock Hotel & Convention Center Catoosa OK
Contact: Kathy Markham (918)-256-9302
Course #: OK-13-054
www.okvma.com

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

Date: September 18
Title: 2013 OSU Turf and Landscape Field Day
Location: OK Botanic Garden/Turf Center Stillwater OK
Contact: Stephanie Larimer (405) 744-5404
Course #: Pending
https://secure.touchnet.com/C20271_ustores/web/index.jsp

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

Date: September 19
Title: Oklahoma Fumigation Workshops
Location: Stored Products Research and Education Center (SPREC) Stillwater OK
Contact: Carol Jones (405) 744-6667
Course #: Pending
http://pested.okstate.edu/practical.htm

CEU's:	Category(s):
2	7C
2	10

Date: September 19-20, 2013
Title: ONLA Annual Convention and Trade Show
Location: Shawnee Expo Center Shawnee OK
Contact: Becky Sellers (405) 945-6737
Course #: OK-13-059

CEU's:	Category(s):
3	3A
2	3C
4	10

Date: September 19-20, 2013
Title: OPCA Annual Conference
Location: Tulsa Marriott Southern Hills Tulsa OK
Contact: Eileen Inwall (405) 726-8773
Course #: OK-13-063
www.ok-pca.com

CEU's:	Category(s):
4	3A
3	5
5	7A
5	7B
3	7C
4	8
9	10
3	11

Date: October 15, 2013
Title: Target Specialty Products
Location: Hard Rock Hotel & Convention Center Catoosa OK
Contact: Jennifer Gonzalez 800-352-3870
Course #: OK-13-057
www.target-specialty.com

CEU's:	Category(s):
2	3A
3	7A
1	7B
5	10
1	All

Date: October 15, 2013
Title: Red River Specialties ROW & Bare Ground Workshop
Location: Courtyard Marriott Norman OK
Contact: Philip Lawrence (580)-235-5194
Course #: OK-13-058
www.rrsi.com

CEU's:	Category(s):
6	6
6	10

Date: October 25, 2013
Title: Asmark Professional Applicator Training- Hydraulic Sprayers
Location: Chisholm Trail Expo Center Enid OK
Contact: Dustin Warder (270)-926-4600 ext. 203
Course #: OK-13-056
www.asmark.org/TrainingCourses/PATCourse.cgi

CEU's:	Category(s):
5	1A
5	6
5	10

Date: November 19, 2013
Title: Winfield Applicator Training
Location: Reed Center Midwest City OK
Contact: Adelita Tyson (254) 445-4359
Course #: OK-13-067
www.winfieldsolutionsceus.com

CEU's:	Category(s):
6	3A
3	3C
2	6
3	7A
2	7B
2	8
10	10

Date: November 20, 2013
Title: Winfield Applicator Training
Location: Hard Rock Hotel & Convention Center Catoosa OK
Contact: Adelita Tyson (254) 445-4359
Course #: OK-13-068
www.winfieldsolutionsceus.com

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

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://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 September/October 2013 are as follows:

September			October	
4	Altus		7	OKC
9	OKC		7	McAlester
12	Tulsa		10	Tulsa
23	OKC		21	OKC
26	Tulsa		23	Altus
			24	Tulsa

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.

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

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

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

Pesticide Safety
Education Program