

PESTICIDE REPORTS



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

November, 2010

CHEM

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

RE-CERTIFICATION

Categories 4 Seed Treatment, 5 Aquatic, and 7c Fumigation must recertify by December 31, 2010. Applicators in these categories should check and make sure they have earned the correct amount of Continuing Education Units (CEU) by December 31, 2010. Applicators that do not have enough CEUs to re-certify must take the appropriate category exam before December 31, 2010 to recertify.

UNWANTED PESTICIDE DISPOSAL DATES & LOCATIONS

Mark your calendars for the next Unwanted Pesticide Disposals coming up in November. There is no charge for this program. Limit is 2,500 pounds per entity. ONLY PESTICIDES will be taken at the sites (no fertilizer, paint, oil, etc)!

If you have any questions contact Charles Luper (OSU) at 405-744-5808 or Jason Baker (ODAFF) at 405-522-5993

Times for all locations 8:00 am to 1:00 pm.

Nov. 9	Alva Farmers COOP	Alva
Nov. 11	Farmers Union COOP	Altus
Nov. 16	Kay County Fairgrounds	Blackwell
Nov. 18	Helena Chemical	Coweta

NEW! CHECK YOUR CEU STATUS ONLINE

The Oklahoma Department of Agriculture, Food, and Forestry (ODAFF) have made available a website to check your CEU status. Oklahoma Certified Applicators can now go to the ODAFF web page and log in with your Certified Applicator number from your certification card to find out the number of CEUs you have in each category you are certified in.

Information provided by the website includes all categories certified in, certification year, re-certification year, years certified in that category, and number of CEUs required in each category, and finally the meetings and number of CEU’s the applicator has been given credit for.

To try it out you can click on the link at <http://pested.okstate.edu/> or go directly to the ODAFF page at <http://www.ag.ok.gov/ceu/>. (ODAFF).

EPA PUBLISHES FINAL RULE TO EXTEND COMPLIANCE DATE FOR PESTICIDE STORAGE AND DISPOSAL LABEL STATEMENTS

In an October 8, 2010, *Federal Register* Notice, EPA announced a final rule that would provide an extension to the compliance date for pesticide storage and disposal label statements, from December 16, 2010 to Aug. 16, 2011. This action finalizes [the June 15, 2010 proposed rule to extend the compliance date to August 16, 2011](#). The main drivers for this extension are that:

- * more products than we anticipated needed alternative language for container-related instructions, requiring more review and implementation time; and
- * registrants and registrant associations expressed concerns about being able to have all labels changed by the previous label compliance date of August 16, 2010.

While we estimate that the majority of label changes have already been submitted and approved, there could still be several thousand labels remaining to be submitted and reviewed.

Since the second quarter of 2010, EPA has been strongly encouraging pesticide registrants to immediately submit any remaining revised labels as soon as possible and definitely prior to the previous deadline of August 16, 2010. Any further delay in clear and complete label modification requests will make it difficult for EPA and States to carry out their label review activities by the new compliance deadline.

For more information, please see [EPA's pesticide container and containment Web page](#).

The *Federal Register* Notice is available online under document ID number EPA_FRDOC_0001-9323 at <http://www.regulations.gov>.

A CLOSER LOOK AT BED BUG RESISTANCE

An interesting story came out last month from the National Evolutionary Synthesis Center at U.C. Berkeley. The story does a nice job of explaining the connection between DDT and pyrethroid resistance, and why pyrethroid resistance has appeared to develop so quickly in the short time that bed bugs have re-emerged as an important North American pest (The one bone I have to pick with the story is its confusion of the relationship and terminology between pyrethrins and pyrethroids--there is no such term as "pyrethrums").

The answer is that when bed bugs reemerged this decade as a major pest they had already been "pre-selected" for resistance to pyrethroids by their previous exposure to DDT. Because DDT acts at a similar site in the nervous system as pyrethroids, researchers theorize that the same mutations that conferred resistance to DDT bestowed protection upon the bearers of those mutations from pyrethroids.

I remember John Osmun, one of my professors at Purdue University, recounting with excitement one of his early army adventures with bed bugs. As an entomologist with the military in the early 1940s he had been assigned to use a secret insecticide to treat bed bug infested army barracks. Almost miraculously, the long-persisting infestation was eradicated. The insecticide was, of course, DDT. Since WWII, DDT went on to become a widely used tool to manage many insect populations, including bed bugs. Unfortunately bed bugs have used their long experience with this insecticide to fight back against more advanced pesticides.

A recent study by [Zhu et al \(2010\)](#) looked at bed bugs collected from 97 locations in 17 states and found resistance to deltamethrin in 88% of the sites.

Because of the scattered geographical sampling conducted in this study, the status of bed bug resistance in Texas is still tentative. The only sample from Texas collected and analyzed in this study was from Beaumont, and showed resistance based on one genetic mutation. Many of the samples revealed populations with another genetic mutation, or even two mutations. Relatively few populations sampled were classified as fully susceptible to deltamethrin.

This does not mean that resistant bed bugs cannot be killed with deltamethrin or similar products; but it does mean that the dose needed to kill will be greatly increased.

The research, especially the resistance maps of the U.S., should be considered tentative; but does give us a better idea why bed bugs are so difficult to control with standard pyrethroid insecticides. Even though the study focused on deltamethrin only, the results should be mostly applicable to all pyrethroids. Chlorfenapyr is the only other liquid residual insecticide that is widely used at the present time that is not a pyrethroid insecticide and to which bed bugs have no known resistance. (Mike Merchant, PhD Texas A&M Agrilife Extension)

Federal Trade Commission Proposes Revised "Green Guides"

Seeks Public Comment on Changes that Would Update Guides and Make Them Easier to Use

The Federal Trade Commission today proposed revisions to the guidance that it gives marketers to help them avoid making misleading environmental claims. The proposed changes are designed to update the Guides and make them easier for companies to understand and use.

The changes to the "Green Guides" include new guidance on marketers' use of product certifications and seals of approval, "renewable energy" claims, "renewable materials" claims, and "carbon offset" claims. The FTC is seeking public comments on the

proposed changes until December 10, 2010, after which it will decide which changes to make final.

"In recent years, businesses have increasingly used 'green' marketing to capture consumers' attention and move Americans toward a more environmentally friendly future. But what companies think green claims mean and what consumers really understand are sometimes two different things," said FTC Chairman Jon Leibowitz. "The proposed updates to the Green Guides will help businesses better align their product claims with consumer expectations."

The Green Guides were first issued in 1992 to help marketers ensure that the claims they are making are true and substantiated. The Guides were revised in 1996 and 1998. The guidance they provide includes: 1) general principles that apply to all environmental marketing claims; 2) how consumers are likely to interpret particular claims and how marketers can substantiate these claims; and 3) how marketers can qualify their claims to avoid deceiving consumers.

The proposed Guides issued today include changes designed to strengthen the FTC's guidance on those marketing claims that are already addressed in the current Guides as well as to provide new guidance on marketing claims that were not common when the Guides were last reviewed. The proposed changes were developed using information collected from three public workshops, public comments, and a study of how consumers understand certain environmental claims.

Proposed Revisions to the Guides

The revised Guides caution marketers not to make blanket, general claims that a product is "environmentally friendly" or "eco-friendly" because the FTC's consumer perception study

confirms that such claims are likely to suggest that the product has specific and far-reaching environmental benefits. Very few products, if any, have all the attributes consumers seem to perceive from such claims, making these claims nearly impossible to substantiate.

The proposed Guides also caution marketers not to use unqualified certifications or seals of approval – those that do not specify the basis for the certification. The Guides more prominently state that unqualified product certifications and seals of approval likely constitute general environmental benefit claims, and they advise marketers that the qualifications they apply to certifications or seals should be clear, prominent, and specific.

Next, the proposed revised Guides advise marketers how consumers are likely to understand certain environmental claims, including that a product is degradable, compostable, or “free of” a particular substance. For example, if a marketer claims that a product that is thrown in the trash is “degradable,” it should decompose in a “reasonably short period of time” – no more than one year.

New Guidance Proposed

The proposed changes would update the Guides by giving advice about claims that are not addressed in the current Guides, such as claims about the use of “renewable materials” and “renewable energy.” The FTC’s consumer perception research suggests that consumers could be misled by these claims because they interpret them differently than marketers intend. Because of this, the Guides advise marketers to provide specific information about the materials and energy used. Moreover, marketers should not make unqualified renewable energy claims if the power used to manufacture any part of the product was derived from fossil fuels.

The proposed revised Guides also provide new advice about carbon offset claims. Carbon offsets fund projects that reduce greenhouse gas emissions in one place in order to counterbalance or “offset” emissions that occur elsewhere. The Guides advise marketers to disclose if the emission reductions that are being offset by a consumer’s purchase will not occur within two years. They also advise marketers to avoid advertising an offset if the activity that produces the offset is already required by law.

The FTC is seeking comment on all aspects of its proposal. Examples include:

How should marketers qualify “made with renewable materials” claims, if at all, to avoid deception?

Should the FTC provide guidance concerning how long consumers think it will take a liquid substance to completely degrade?

How do consumers understand “carbon offset” and “carbon neutral” claims? Is there any evidence of consumer confusion concerning the use of these claims?

A complete set of questions can be found in Section VII of the Guides – Request for Comment.

In addition, the proposed Guides have been reorganized and simplified where possible so they are easier for businesses to read and use.

Finally, either because the FTC lacks a sufficient basis to provide meaningful guidance or because the FTC wants to avoid proposing guidance that duplicates rules or guidance of other agencies, the proposed Guides do not address use of the terms “sustainable,” “natural,” and “organic.” Organic claims made for textiles and other products derived from agricultural products are currently covered by

the U.S. Department of Agriculture's National Organic Program.

The Commission vote approving the issuance of the proposed revised Green Guides for public comment was 5-0. They can be found on the FTC's website and as a link to this press release at <http://www.ftc.gov/os/fedreg/2010/october/101006greenguidesfrn.pdf>. A summary of the proposed revised Guides can be found at <http://www.ftc.gov/os/2010/10/101006greenguidesproposal.pdf>. The FTC is accepting comments on the Guides for 60 days, beginning today and continuing until December 10, 2010. Interested parties can submit comments in paper form by following the instructions in the "Request for Comment" section of the Federal Register notice. Comments can be submitted electronically at: <https://ftcpublic.commentworks.com/ftc/revisedgreenguides>. (FTC)

Fungicide Resistance Found In Soybean Field

Research conducted by the University of Illinois (U of I) and the University of Tennessee confirms that the fungus that causes frogeye leaf spot (FLS) of soybean, *Cercospora sojina*, has shown resistance to strobilurin fungicides in a Tennessee soybean field.

"Strobilurin fungicides belong to the chemistry class known as the quinone outside inhibitors (QoIs), which are the most widely used group of foliar fungicides applied to field crops to manage plant diseases," says Carl Bradley, U of I Extension plant pathologist.

These fungicides can be sold as one-active ingredient products such as Headline (BASF Corp.) or Quadris (Syngenta Crop Protection) or in products that combine them with a fungicide in a

different chemistry class known as the demethylation inhibitors, sometimes referred to as triazoles, he says. Products that include a strobilurin-triazole combination of active ingredients include Quilt (Syngenta Crop Protection) and Stratego (Bayer CropScience).

Strobilurin fungicides have been deemed high risk for fungal pathogens developing resistance to them. This high-risk status has been determined by the Fungicide Resistance Action Committee (FRAC), an international committee that evaluates fungicides' likelihood of developing resistance.

"Plant pathogenic fungi developing resistance to strobilurin fungicides is not new," Bradley says. "This has already occurred in potatoes and other crop and disease systems where multiple fungicide applications occur during the growing season."

In the major soybean production areas in the U.S., soybean fields are generally treated once during the season with a fungicide (if treated at all), Bradley says.

"However, we were somewhat surprised to find resistance so soon," he adds. "Every time you apply a fungicide, you increase the selection pressure and the opportunity to select out individuals in the pathogen population that have resistance or reduced sensitivity to the fungicide."

In 2008, Bradley's laboratory began a project funded by the Illinois Soybean Association to develop a fungicide resistance monitoring program. Since then, his lab has been obtaining samples, conducting tests and monitoring isolates collected from Illinois.

"This year, we decided to cast our net a little farther, particularly in the South," he says. "In Tennessee, FLS is a major soybean foliar disease. Dr. Melvin Newman of the University of Tennessee sent me samples from a field that had been sprayed twice with strobilurin fungicides but still continued to have high levels of FLS, which was an indication of potential fungicide resistance."

Bradley's team confirmed that the sensitivity of the Tennessee isolates was reduced as compared to the sensitivity of baseline isolates.

In petri dish tests conducted at the U of I, spores from isolates of *Cercospora sojina* germinated in the presence of high concentrations of azoxystrobin, pyraclostrobin, and trifloxystrobin, which are the strobilurin active ingredients found in Quadris, Headline, and Stratego.

"This proved we were dealing with isolates that have reduced sensitivity to strobilurin fungicides," he said. "Currently, Tennessee is the only state in which we have documented isolates like these, but we are continuing to perform tests on isolates collected from fields in Illinois and other states." (Jennifer Shike, *College of Agricultural, Consumer and Environmental Sciences, University of Illinois*)

MISLEADING CLAIMS FOUND ON PLETHORA OF "GREEN" PRODUCTS

(*Beyond Pesticides*, October 29, 2010) According to a new report by the North American environmental-marketing company TerraChoice, 95% of consumer products examined that claim to be eco-friendly are guilty of greenwashing, including: vague language such as "all-natural," no proof of environmental claims, and the use of fake labels designed to imply that the product has a third party endorsement. Interestingly, the study found that "big box" retailers tend to stock more "green" products and more products that provide legitimate environmental certifications (like [organic](#)) than smaller "green" boutique-style stores. This report comes on the heels of FTC's announcement to revise its "Green Guides" guidelines. In an effort to reduce confusion among consumers trying to decipher the wide variety of green claims, the commission is revising its guidelines for companies seeking to promote their products as environmentally friendly.

The report, *The Sins of Greenwashing: Home and Family Edition*, examines over 5,000 consumer

products in 34 stores in the U.S. and Canada and finds 12,061 "green" claims. Researchers documented product details, claim details, any supporting information on labels or store shelves, and any explanatory details or offers of additional information or support. Those claims were tested against best practice and guidelines provided by the FTC, the Competition Bureau of Canada, and the ISO 14021 standard for environmental labeling.

Unfortunately, some supposedly green labels mean very little. For example, the "Earth Friendly Farm Friendly" label found on some dairy products actually encourages the use of pesticides, hormones and antibiotics to increase production. Sarah Lee has been accused of green washing for creating a line called Earth Grains bread. Despite a major marketing campaign to push the products as environmentally friendly, the grains for the breads are produced with only a slight decrease in the amount of synthetic fertilizer used.

"Greenwashing" is an issue that touches many industries, and education and awareness play a key role in helping to prevent it," said Stephen Wenc, President, UL Environment. "We're hopeful that the trends and tips identified in this study will help our business partners confidently and appropriately share their environmental achievements with their consumers."

Currently, the U.S. Department of Agriculture (USDA) Certified Organic label is the best bet. The USDA Organic Label info is intended to show consumers that the product adheres to uniform standard which meet the requirements of the National Organic Program Final Rule.

When choosing a product that is better for the environment, it is important that consumers are informed. It is due to consumer demand that the National Organic Standards Program was created. Consumers should read labels and do their homework to avoid being taken in by a company's green washing. For more information on reading through "Green" consumer claims, read *Beyond Pesticides'* "Making Sure Green Consumer Claims are Truthful."

Take Action: FTC is currently taking public comments on their “Green Guides,” which only guidelines and not enforceable as law. The FTC can, however, take action if it deems a company’s marketing to be deceptive or misleading. This is the first time in twelve years that the FTC will revise its green marketing guidelines. The “Green Guides were originally issued in 1992 with the purpose of helping companies ensure the claims they make are true and substantiated. View the proposed “Green Guides” and Submit your comments to the FTC by **December 10, 2010.**

Source: [TerraChoice Press Release](#)

NEGLIGENT BED BUG EXTERMINATION CONTAMINATES ELEMENTARY SCHOOL

(*Beyond Pesticides*, October 28, 2010) In an effort to combat a bedbug problem in a Brooklyn, New York elementary school, the Department of Education (DOE) paid a private contractor almost \$100,000 to exterminate and, according to teachers, left the classrooms “soaked with a liquid bed bug killing chemical.” An odorous fluid was left behind on children’s and teacher’s desks, books and on the floors. *ABC 7 Online* reports the unknown pesticide substance is being tested, but teachers and parents will not know the results and what they were exposed to for another two weeks. The teacher’s union estimates that cleaning up the classroom will cost over twice what was paid, and the DOE plans to bill the contractor and stop the company from future business in the city, according to the news report.

This story showcases the importance of a comprehensive school and community pesticide and pest management policy in response to the mass hysteria that bedbugs are causing and as a general public health protection measure. The bedbug outbreak prompted the U.S. Environmental Protection Agency (EPA) to issue warnings against improper treatments and misuses of pesticides. Despite the fact that bed bugs do not transmit diseases and are not generally considered to be a

threat to health, the recent resurgence of these pests have caused many people to take desperate measures to eradicate them by using dangerous outdoor pesticides and fly-by-night exterminators. To solve the bed bug problem nationwide, it is going to take a comprehensive public health campaign -public-service announcements, travel tips and perhaps even government-sponsored integrated pest management programs for public housing and other high density areas. Recently, Los Angeles and San Francisco hosted workshops on bed bugs, and Beyond Pesticides released an updated fact sheet on how to deal with bed bugs without toxic pesticides.

It is important to focus on non-toxic pest control in schools because children are especially vulnerable to the health hazards associated with pesticide exposure due to their small size, greater intake of air and food relative to body weight, and developing organ systems. Several pesticides, including pyrethroids, organophosphates and carbamates are known to cause or exacerbate asthma. In fact, of the 48 most commonly used pesticides in schools, 22 are probable or possible carcinogens, 26 have been shown to cause reproductive effects, 31 damage the nervous system, 31 injure the liver or kidney, 41 are sensitizers or irritants, and 16 can cause birth defects. The body of evidence in scientific literature shows that pesticide exposure can adversely affect a child’s neurological, respiratory, immune, and endocrine system, even at low levels.

Beyond Pesticides recommends the implementation of a defined IPM system to prevent pest problems with non-chemical management strategies and only least-toxic pesticides as a last resort. IPM relies on a combination of methods that address sanitation, structural repair, mechanical measures, biological controls and other non-chemical methods inside buildings and additional approaches for turf and ornamental plant management that build healthy soil and natural resistance to pests. The report by the National School Pesticide Reform Coalition and Beyond Pesticides entitled, “Safer Schools: Achieving a Healthy Learning Environment through Integrated Pest Management” elaborates on the IPM system, and how it can be implemented successfully. (Beyond Pesticides)

JOURNAL ARTICLE REPORTS PESTICIDES CONTAMINATE ONE FIFTH OF KIDS' FOODS

Environmental Health Perspectives recently published an article directly linking consumption of conventionally-produced fruits and vegetables to pesticide residues in children's bodies. Children are at particular risk when it comes to pesticides. For instance, consumption of organophosphate (OP) pesticide residues have recently been linked to increased rates of attention deficit hyperactivity disorder (ADHD) in children. In the EHP study, Forty-six children supplied 239 samples that were analyzed for (OP) and pyrethroid pesticides—both nervous system toxicants and suspected endocrine disruptors. About one fifth of the food samples contained residues. These findings replicate similar results published two years ago in the same journal.

While most residues were within the ranges listed on PAN's What's On My Food? database, there were some exceptions including six OPs and three pyrethroids found on different combinations of the following foods: apples, bell peppers, blackberries, blueberries, broccoli, carrots, celery, cherries, ketchup, lettuce, mushrooms, nectarines, peaches, potatoes, raspberries, spinach, and strawberries. The authors noted that many foods are not included in the USDA's national pesticide residues testing, including some of the foods consumed in the largest quantities by children. It is also important to note that “acceptable levels” (called tolerances) are intended for monitoring residues in raw produce at the farm gate, prior to washing, shipping, storage, marketing, and food preparation and do not consider the potential impact of exposure to multiple pesticides.

The 1993 the National Research Council report, *Pesticides in the Diets of Infants and Children*, concluded that, “dietary intake represents the major source of pesticide exposure for infants and children, and the dietary exposure may account for the increased pesticide-related health risks in children compared to adults.” This led to the

subsequent passing of the 1996 Food Quality Protection Act (FQPA), which promised to rein in residue exposures, especially among children. Clearly the FQPA has not done the job.(Pesticide Action Network)

EPA DENIES NRDC OBJECTIONS TO CARBARYL TOLERANCES

In this order, EPA denies objections, and requests for a hearing on those objections, to an earlier EPA Order, (73 FR 64229), denying a petition to revoke all tolerances established for the pesticide, carbaryl, under the Federal Food, Drug, and Cosmetic Act (FFDCA), 21 U.S.C. 346a, (Refs. 1 and 2). Both the objections and hearing requests, as well as the petition, were filed with EPA by NRDC.

NRDC's original petition, dated January 10, 2005, submitted to the carbaryl public docket during the public comment period for the 2004 Amended Interim Reregistration Eligibility Decision (IRED) for Carbaryl, and filed pursuant to FFDCA section 408(d)(1), asserted a number of grounds why carbaryl tolerances allegedly fail to meet the FFDCA's safety standard. The main arguments raised in the petition concerned EPA's drinking water assessment and EPA's decision on the statutory safety factor to protect infants and children that supported the 2004 IRED decision. NRDC also petitioned the Agency to cancel all carbaryl uses pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) 7 U.S.C. 136(bb) and 136a, and argued unreasonable risks on the environment. Subsequently, on November 26, 2007, NRDC petitioned EPA to cancel all carbaryl pet collar uses under FIFRA. (Ref. 3). EPA consolidated this latter petition with the 2005 FFDCA petition because NRDC argued in it that exposure to carbaryl pet collars make the risks presented by carbaryl unsafe within the meaning of FFDCA section 408.

On October 29, 2008, EPA responded to both the 2005 petition to revoke all carbaryl tolerances and the 2007 petition to cancel all pet collar uses,

denying them in their entirety. (73 FR 64229, October 29, 2008) (Ref. 4).

NRDC then filed objections to EPA's denial of NRDC's petition to revoke all carbaryl tolerances and requested a hearing on its objections. These objections and hearing requests were filed pursuant to the procedures in the FFDCA, section 408(g)(2). (21 U.S.C. 346a(g)(2)). The objections narrowed NRDC's claims to two main topics - that EPA lacks reliable data to reduce the Food Quality Protection Act (FQPA) Children's Safety Factor and that EPA's exposure assessment for carbaryl is flawed and underestimates the exposure to children from pet collar uses. After carefully reviewing the objections and hearing requests, EPA has determined that NRDC's hearing requests do not satisfy the regulatory requirements for such requests and that its substantive objections are without merit. Therefore, EPA, in this final order, denies NRDC's objections and its requests for a hearing on those objections. (EPA Federal Register Notice September 15, 2010).

In-State CEU Meetings

Date: November 2-4
Title: Oklahoma AG Expo
Location: Oklahoma City
Contact: Tammy Miller (580) 233-9516
To Register:
Course #: OK-10-071

CEU's:	Category(s):
11	10
8	1A
2	7C
1	4
1	All

[Click here for more CEU INFO](#)

Date: November 4
Title: OSU Lawncare Workshop
Location: Oklahoma County Extension Center
Contact: Charles Luper (405) 744-5808
To Register:
Course #: OK-10-077

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

Date: November 5
Title: Winfield Solutions (Estes) IVM Workshop
Location: Oklahoma City
Contact: Stacey Gingrich (405) 232-2493
To Register:
Course #: OK-10-085

CEU's:	Category(s):
5	10
5	6
2	5
1	3A

ODAFF Approved Online CEU Course Links

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

Testing Dates and Locations
 Pesticide applicator test sessions for October/November, 2010 are as follows:

November		December	
2	Goodwell	1	Lawton
4	Tulsa	2	Tulsa
8	OKC	7	Goodwell
10	Hobart	9	Enid
15	McAlester	13	OKC
18	Tulsa	13	McAlester
22	OKC	16	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