OKLAHOMA COOPERATIVE EXTENSION SERVICE

PESTICIDE REPORTS

Division of Agricultural Sciences and Natural Resources • Oklahoma State University
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CHEM

OSU PSEP Lawn Care Pest Management Programs 2011

The OSU Pesticide Safety Education Program will conduct two Lawn care CEU programs in July. They will be held July 7 at the Oklahoma County Extension Office (930 N Portland) and July 13 at the Tulsa County Extension Office (4116 E. 15th). The program will run from 9 am to 12:30 pm. 3 CEU's for categories 3A and 10 will be available

Topics to be covered: The Plant Disease and Diagnostic Laboratory at OSU, Weed Control and mulches for ornamentals, and ODAFF Facility Inspections for Pesticide Applicators.

Registration cost is $30 for pre-registration by June 30 and $50 after June 30. You can find registration forms or register online at http://pested.okstate.edu/practical.htm. Please contact Charles Luper at 405-744-5808 for any questions. (PSEP)

INDUSTRY MAKES FINAL ATTEMPT TO CONVINCE SUPREME COURT TO HEAR CARBOFURAN CASE

In a brief filed May 10, carbofuran registrant FMC and several grower groups presented their final arguments to the U.S. Supreme Court on why it should review a D.C. Circuit ruling upholding EPA's decision to reject a hearing request over its decision to revoke carbofuran tolerances.

The court was scheduled to meet in conference yesterday to consider whether to hear the case. A decision could come as early as Tuesday.

The petitioners, which also include the National Potato Council, National Corn Growers Association and National Sunflower Association, reiterate many of the arguments made in their Feb. 16 petition for

writ of certiorari and in previous proceedings in the D.C. Circuit.

The case warrants the court's attention, the petitioners argue, because the D.C. Circuit's decision "not only directly conflicts with the decisions of [the Supreme Court] and other circuits, it effectively guts the statutory hearing right [under the Federal Food, Drug, and Cosmetic Act] at issue in this case."

The petitioners call the case "a poster child for why the FFDCA's hearing requirement is necessary" while reiterating the D.C. Circuit's view on when a hearing is required -- "if EPA determines an objection raises a material issue of fact."

"EPA's implausible conclusion that no material issue of fact exists not only fails to account for the mountain of expert evidence petitioners presented showing that carbofuran is safe at the levels at issue, but is based on completely unrealistic assumptions," the brief states, pointing in particular to EPA's assumption that carbofuran would be used on all relevant crops everywhere simply because that was allowed.

"There is, at the very least, a material issue of disputed fact concerning whether carbofuran is safe, especially at the relatively low levels at issue here," the brief continues.

The D.C. Circuit's ruling essentially gives EPA "carte blanche to decide what expert testimony, if any, is sufficient to warrant a hearing." As a result, the only way to get a hearing is by the grace of EPA, the petitioners claim.

But "in the 40 years of the FFDCA, EPA has never found a single disagreement with its positions that it believed sufficient to give rise to a material issue of fact requiring a hearing," they note, adding that EPA "categorically rejects any expert opinion."

The petitioners counter the D.C. Circuit's conclusion that it would "not overturn an agency's finding there is no material issue of fact based upon '[m]ere differences in the weight or credence given to particular studies'" by stressing that "if mere differences in expert testimony or reports concerning outcome-determinative facts like safety are not sufficient to warrant a hearing, nothing is."

Broad implications

In making their argument for Supreme Court consideration, the petitioners say the case has broad implications beyond the immediate issue of carbofuran and tolerance revocation, noting that Congress has adopted similar hearing requirements "in several statutes empowering agencies to ban products, and the vast majority of agency decisions are subject to review in the [D.C.] Circuit."

The principles at issue here -- what constitutes a material issue of fact "and what standard of judicial review applies to an agency's determination that one does not exist -- ... apply directly to numerous other administrative summary judgment-type schemes," the petitioners assert.

Finally, the petitioners claim that EPA's "novel waiver regime only heightens the need for review."

They refer to the waiver rules as a "Catch 22" situation whereby any arguments raised can be rejected as too early or too late. In this case, EPA said it would only consider issues raised in the public comment period on the proposed revocation. As a result, the petitioners submitted extensive comments and evidence. But at the objections and hearing request stage, EPA refused to consider those comments and evidence, saying they were recycled and ineligible.

"EPA's waiver regime … enables the agency to avoid the development of a record and preclude judicial review altogether," the petition states. In its April 25 brief opposing the cert petition, EPA asserts that the decision whether to hold a hearing is discretionary, and the D.C. Circuit properly applied a deferential standard to the agency's decision not to hold one (Pesticide & Chemical Policy, May 27 2011, Volume: 39 Issue: 26)

6 WAYS TO REDUCE HERBICIDE SPRAY DRIFT

Growers need to take precautions to reduce off-target drift when applying herbicides this spring, said Purdue Extension weed scientist Bill Johnson.

"Drift reduces product efficacy on the intended target and can result in damage to sensitive plants," he said. "It also can deposit illegal residues on edible crops, especially organic or processed crops that are checked for contaminants."

There are two types of herbicide drift — vapor and particle. With vapor drift, the application reaches its target but at some point moves off-target after application. With particle drift, the portion that moves off-target never reaches is target.

Particle drift can occur with any pesticide application, regardless of product formulation, and is directly associated with droplet size, sprayer boom height and wind speed.

"Injury symptoms from drift will depend on the product used, environmental conditions and sensitivity of the plants in the path of air flow," Johnson said. "Low concentrations of glyphosate may or may not show injury symptoms, while low concentrations of 2,4-D or dicamba may show major symptoms on sensitive plants such as tomatoes, grapes, and roses."

Here are six common ways to reduce particle drift, according to Johnson:

1. **Use the lower end of the recommended pressure range for a particular nozzle to produce course droplets.**
2. **Lower the boom height but ensure the spray pattern is maintained.**
3. **Rather than increasing pressure to provide higher outputs, increase the nozzle size to increase the spray volume per acre while keeping within the recommended pressure.**
4. **Spray when wind speeds are below 10 miles per hour. Some herbicide labels specifically state that applications should not be made when wind speeds exceed 10 mph.**
5. **Spray when the wind direction is away from sensitive areas.**
6. **If possible, use a drift control agent.**

Vapor drift presents a bigger challenge to crop farmers.

"Vapor drift is much harder to control than particle drift," Johnson said. "Vapor drift is a function of the herbicide formulation and ambient temperature."

Temperature and weather conditions favorable for long-distance vapor drift most commonly occur from mid-April to mid-May but can continue into June and July.

"Long distance movement usually occurs at night when the temperature is cool and there is light air movement," Johnson said. "When such days occur, being aware of a volatile herbicide's ability to vaporize can help applicators manage potential drift problems by either not spraying until conditions improve or by choosing a formulation of the product that is less subject to volatilization." (Crop Life http://www.croplife.com/news/?storyid=3350)

R.I. MAN SENTENCED TO TWO YEARS IN FEDERAL PRISON FOR INTERNET SALES OF COUNTERFEIT "FRONTLINE" PET PRODUCTS

PROVIDENCE, R.I. – A Warwick, R.I., man was sentenced to 24 months in federal prison today for Internet sales of unregistered, unlabeled pesticides for cats and dogs while infringing on the trademark of two well known national brand names, "Frontline" and "Frontline Plus."

U.S. District Court Chief Judge Mary M. Lisi also ordered John Buerman, 51, of Warwick, R.I., to serve three years of supervised release following his prison term. Buerman, pleaded guilty in U.S. District Court in Providence in August 2010 to one count of trafficking in counterfeit goods and knowingly using a counterfeit mark; and one count of knowingly distributing and selling a misbranded pesticide. Buerman made more than 3,500 sales through eBay.

Buerman's sentence was announced by Peter F. Neronha, U.S. Attorney for the District of Rhode Island; André Birotte Jr., U.S. Attorney for the Central District of California, and Michael E. Hubbard, Special Agent in Charge of the Boston office of EPA's Criminal Investigation Division.

At the time of Buerman's guilty plea, Assistant U.S. Attorney Terrence P. Donnelly told the court that Buerman created an online eBay store in January 2007 called "Catsmartplus," and began marketing pet pesticides he falsely claimed were "Frontline" or "Frontline Plus." Additionally, Buerman falsely represented that the pesticides were approved by the EPA. Mr. Donnelly told the court that Buerman purchased large quantities of counterfeit pesticides for cats and dogs from distributors in various parts of the world, including several in the United States, as well as Canada, Australia, and China. He made 3,579 sales on eBay totaling $174,172 from January 2007 until federal and state agents executed a search warrant at his
R.I. home in June 2009.

The matter came to light when a customer from the Los Angeles area purchased the product from the defendant's online store for $32.95. The customer reported the matter to the authorities after one of her cats had an adverse reaction to the pesticide. Testing at EPA's National Enforcement Investigations Center (NEIC) laboratory confirmed that the products contained unregistered pesticides. Investigators also purchased similar misbranded and trademark-infringing items from the defendant's online store.

Buerman was charged by way of Information in the Central District of California, where the matter was prosecuted by Assistant U.S. Attorney Bayron T. Gilchrist. The matter was transferred to the District of Rhode Island in May 2010.

Warwick police assisted EPA in the investigation.(DOJ Press Release March 1, 2011) http://www.epa.gov/compliance/resources/cases/criminal/highlights/2011/buerman-john-03-01-11.pdf

GROWERS SEEK NEW LIFE FOR ALDICARB

Growers are seeking a new life for aldicarb, an insecticide currently being phased out due to concerns over dietary exposure. Dozens of cotton farmers and their trade association have submitted comments urging EPA to approve a registration request for a new product containing the insecticide.

The request was submitted Sept. 30, 2010 by Ag Logic LLC, a subsidiary of Chapel Hill, N.C. -based MEY Corp., for its product MEYMIK 15G. The company is seeking approval for its use on cotton, dry beans, peanuts, soybeans, sugar beets and sweet potatoes. EPA's publication of the request in the March 30 *Federal Register* elicited about 160 public comments, many of them form letters submitted by farmers in support of the registration. The letters state, "Other products cost much more and are not as effective … It will cause me a significant loss in productivity and profit if I don't have aldicarb available for use as a nematicide and insecticide in my farming operation."

The only registrant for aldicarb has been Bayer CropScience with its product Temik. Last August, following an EPA assessment that concluded aldicarb posed an unacceptible dietary risk to young children, Bayer asked the agency to immediately cancel all uses on potatoes and citrus fruit and to cancel remaining uses on the six crops listed by Ag Logic by August 2018. Manufacturing of the chemical was to have concluded at the end of 2014. However, on March 18, Bayer announced it would no longer make Temik, as it decided to end production of methyl isocyanate, a key component

of the pesticide, at its Institute, W.Va. plant (see *P&CP* March 18, Page 17).

Keith Menchey, manager of science and environmental issues for the National Cotton Council, tells *Pesticide & Chemical Policy*, "A lot of our members were taken aback by Bayer's last minute decision to close down the West Virginia plant and not produce aldicarb anymore … perhaps in the long run, this could be a solution." Menchey is hearing that EPA appears to be reacting favorably to the registration request but does not expect approval, if it's forthcoming, to be in time to benefit producers during the 2011 growing season.

Big losses

In his comments to EPA, Menchey says a five year research project presented at January's annual Beltwide Cotton Conference found cotton from aldicarb-treated plots produced an additional 198 pounds of cotton fiber per acre and an additional 297 pounds of cottonseed compared to untreated control plots. He says use of the chemical has declined in its 40 years on the market, but presuming 25% of U.S. cotton is treated with aldicarb, its lack of availability this year will cost those farmers $816 million. Menchey says NCC "will work with pesticide manufacturers to find a suitable alternative. But, until that time, it is crucial that the supply of aldicarb be sufficiently maintained."

In his own comments submitted to EPA, MEY president Antoine Puech writes, "A total annual economic benefit to growers from the use of aldicarb is estimated to exceed $375 million," $315 million of that to accrue to cotton farmers. He says the figure is conservative because it does not account for benefits like better crop quality, convenience, improved coordination of management practices, reduced soil compaction and an earlier cotton crop. In contrast to the phaseout timetable sought by Bayer, EPA says Ag Logic is seeking permanent registration for the uses cited in the petition. Ag Logic also wants to double to 2.1 lbs/acre the maximum label application compared to Temik for side dress and split applications on cotton grown in California.

Setting up a challenge?

James Aidala, a consultant with Bergeson & Campbell who served as director of EPA's pesticides and chemicals office from 2000-2001, suspects the agency might deny the petition on the grounds that the product does not qualify for a tolerance. Such a move, he tells *P&CP*, might trigger a challenge from Ag Logic, which might argue cotton doesn't need a tolerance given that the amount of aldicarb that shows up in the food chain is miniscule. He believes Ag Logic wants aldicarb use on cotton to be judged under the risk benefit requirements of FIFRA rather than the risk-only considerations of the Federal Food, Drug and Cosmetic Act.

Aidala says the cancellation of potato and citrus uses as well as other restrictions Bayer had agreed to last year could create more room in the "risk cup," the aggregate amount of the chemical that EPA calculates is in the food supply from existing uses. He says if Ag Logic argues there are "incredibly high benefits and very small risk," and EPA still denies the application, "that would be the actionable thing that may then be challenged." Such a challenge, he says, "has rarely, if ever, been done before."

Puech says Ag Logic, which was created specifically to handle the MEYMIK 15G application, had a "very positive meeting" with EPA and adds, "I think it's fair to say that subject to that meeting, they put out the *Federal Register* notice for public comment on our application." He tells *P&CP* the overwhelmingly supportive public comments will be "very important."

Regarding how Ag Logic plans to overcome the concerns that led to the current phase-out of aldicarb, Puech says the company has no definitive answer beyond its promise "to keep it on the market, keep producing it, and keep doing all the research and development needed to sustain its continued safe and proper use." He says EPA is required to give them a decision by October. (Pesticide & Chemical Policy, May 6 2011, Volume: 39 Issue: 23)

STAKEHOLDERS WANT CONGRESSIONAL FIX TO ENDANGERED SPECIES-PESTICIDE CONSULTATION PROCESS

Several stakeholders this week told two House committees that Congress should update the Endangered Species Act to improve the consultation process between EPA and federal wildlife agencies regarding pesticide impacts on listed species. But given that they were asked to provide a one-word answer to the question of revisiting ESA, members of the diverse six-member panel testifying were short on details of what that update should be.

"In particular, I would look at an option to be able to implement counterpart regulations that would survive the court," Debra Edwards, former director of EPA's Office of Pesticide Programs, affirmatively responded to the question from Rep. Doc Hastings (R-Wash.) during a joint hearing of the House Natural Resources Committee and Agriculture Committee.

Edwards, who currently works as a senior managing scientist with the consulting firm Exponent, was referring to regulations promulgated in 2004 that were aimed at streamlining the consultation process under which EPA seeks input from either the National Marine Fisheries Service or the U.S. Fish and Wildlife Service (the Services) on whether its actions pose a threat to endangered species.

The hearing was prompted by a contentious, ongoing consultation process between EPA and NMFS that has resulted, over the past few years, in three final biological opinions and one draft from the wildlife agency that conclude various endangered salmon and steelhead species would be jeopardized by the continued use of several EPA-registered and labeled pesticides. BiOps are being completed by NMFS on the impacts of 37 pesticides on 28 Pacific salmonids per the dictates of a settlement agreement in *Northwest Coalition for Alternatives to Pesticides v. NMFS*.

Under ESA, when EPA determines a pesticide registration may affect a listed species, it must consult with NMFS and/or the Fish & Wildlife Service, which completes a biological opinion determining whether the action will jeopardize the continued existence of the species or adversely modify its critical habitat. If there is a jeopardy finding, measures are proposed to reduce risks to listed species.

The counterpart regulations would have allowed EPA to draft both effects determinations and BiOps, as well as eliminate the need for EPA to informally consult with the Services when it determined a pesticide registration was not likely to adversely affect a listed species. But environmental groups said the regulations were illegal, and in 2006, a federal judge agreed, rejecting key parts of the regulations.

After asserting the risk assessment requirements for pesticide registration by EPA under FIFRA and consultation with the Services under ESA are duplicative, Barry Bushue, president of the Oregon Farm Bureau and vice president of the American Farm Bureau Federation, told the committees that "legislation is needed to reconcile the roles of these respective agencies, and to mesh two risk assessment requirements into one. A starting point for discussion might be [the] counterpart regulations..."

The remaining panel members also supported updating ESA, after reiterating ongoing concerns about the lack of stakeholder involvement in the consultation process and criticism of NMFS for failing to rely on the best available science in its BiOps, including actual pesticide use and water monitoring data.

None of the members of Congress explicitly expressed a need or desire at the hearing for a legislative fix. House Agriculture Committee Ranking Member Collin Peterson (D-Minn.) said during his opening statement that "someone" needs to step up and resolve the issues surrounding the consultation process. "Perhaps this is something that Congress should address," he added.

During his testimony, West Mathison, board president of the Washington State Horticultural Association, urged suspending the implementation of the three BiOps and further work until a National Academy of Sciences (NAS) review of the underlying science is complete and a consultation process "based on the best available peer-reviewed science" is established.

No update needed

While acknowledging challenges in the consultation process, OPP Director Steven Bradbury, who testified on an earlier panel of government officials, asserted no legislative update is needed.

EPA and the Services have been struggling to agree on the best way to answer whether a pesticide adversely affects an endangered species or its habitat. Edwards, in her capacity as OPP director, questioned aspects of NMFS's first BiOp in 2008, and described for the committees the relationship between EPA and the Services during her tenure as "strained." Legal deadlines were contributors to the stress, Edwards said, adding, "It was very difficult for EPA scientists to understand the recommendations made by the Services because the science was so mysterious in how those decisions were reached."

Edwards' successor, Bradbury, recently raised his own questions with NMFS's draft fourth BiOp (see *P&CP* April 29, Page 1).

EPA and the Services have opted to bring in NAS to review the scientific and technical issues pertaining to their differing assessment approaches -- a process that will take roughly 18 months.

Still, EPA "doesn't believe there's a need for a change in FIFRA or a change in the Endangered Species Act to move forward" with improving the consultation process, Bradbury told the committees. "The challenge is working through the scientific issues ... working through the public participation process, coming up with risk mitigation measures ... We can do those things with the existing statutes."

Nineteen legislators questioned Bradbury, along with Eric Schwaab, assistant administrator for fisheries at NMFS, Rowan Gould, FWS acting director, and Joseph Glauber, chief economist at USDA. But Bradbury and Schwaab bore the brunt of questioning, fielding inquiries about the pesticide registration and consultation processes.

House Republicans and some Democrats homed in on the potential economic impacts on agriculture arising from the "reasonable and prudent alternatives" NMFS has proposed in its BiOps -- Glauber noted that a USDA analysis predicted revenue losses of $37-$583 million from the effects of no-spray buffer zones for 54 pesticides subject to an injunction in a precursor case to *Northwest Coalition for Alternatives to Pesticides v. EPA*.

Schwaab was repeatedly questioned about whether NMFS considers economic impacts and industry input during the consultation process -- it does, he said, through the action agency (like EPA) during the development of RPAs.

But lawmakers seemed unconvinced.

Rep. Frank Lucas (R-Okla.), chair of the House Agriculture Committee, was dismayed to learn the charge to NAS did not include a review of the economic impact models used in the consultation process. Rep. Jim Costa (D-Calif.), member of both committees, pressed the agency officials to commit to placing further action on hold if no agreement can be reached "regarding economic effect" in the NAS inquiry.

Bradbury said the issue "is something to take back to our agencies" and look at the charge to NAS "and see about that."

Proper Spray Tank Cleanout Tips

A clean sprayer is essential to prevent damage to susceptible crops from herbicide contamination. This is especially true today, when the challenge posed by the spread of herbicide-resistant weeds is demanding that growers and professional applicators use a wider variety of herbicides with different modes of action and chemistries, often within the same growing season and on the same fields.

To prevent the deposit of dried spray residue, sprayers should be cleaned out as soon as possible after use. In fact, a sprayer should never be left to sit overnight without cleaning. Filling the spray tank with water will prevent dried deposits from forming.

Each and every herbicide should have a recommended cleaning agent and cleaning procedure listed on the product label. The following is a general procedure to properly cleanout the spray system:

■ Make sure the sprayer is completely drained of any remaining product. Use the boom cleanout option if your machine is so equipped.
■ Remove and clean the product line strainers.
■ Open the fresh water valve and move the main control valve from the spray position to the tank rinse position.
■ Turn on the product pump and draw in the desired amount of clean water from the top tank. Once the proper amount of water is in, close the fresh water valve.
■ With the pump running, operate each of the reload station valves to allow the fresh water to rinse those lines, including the bypass/reload valve, the chemical educator and sparger.
■ Spray some of the fresh water through the booms and out the nozzle bodies. It is important to not forget the end-row nozzles if so equipped.
■ Let circulate for 15 to 20 minutes.
■ Repeat the above steps as directed by the chemical label.
■ Spray out or drain to properly dispose of the rinse water. Rinsate is best disposed of by applying it to a labeled use site or crop.
■ Operate the boom clean-out function (if equipped) to clean the booms of the remaining rinse water.
■ When spraying products that are in suspension, remove the end caps from the boom plumbing sections and flush with fresh water. These areas have a tendency to trap products, and cleaning them is essential.

To avoid the potential for plant injury, special care must be given to cleaning out the spray system when using one sprayer to apply glyphosate and dicamba products. Unlike glyphosate, which is very water soluble and can easily be cleaned out of a sprayer with water, the dicamba products — or Plant Growth Regulators (PGR) — take a lot more time and care to remove. Examples of PGR herbicides include Clarity, Banvel and 2,4-D. It is important to note that a study conducted by the University of Tennessee shows that as little as 1/10,000th of an 8-ounce per acre dicamba rate can produce injury symptoms on soybeans.

Being Very Careful Between Cleanings

Equally important: Injury can range from cosmetic leaf damage to 80% yield loss, depending on the amount of PGR residue in the tank and the crop growth stage at the time of application. The reason for this is that PGR herbicides readily adhere to the inside of a sprayer, particularly to plastic and rubber parts, and they cannot be completely and successfully rinsed out of a sprayer with water only.

As it turns out, glyphosate is a very effective tank clean for PGR herbicides. Therefore, the threat of crop injury can be increased when a sprayer with a glyphosate herbicide load is left standing overnight — or even for a few hours.

PGR herbicides need a solution of household ammonia and water or a commercial tank cleaner to successfully remove all residues. These materials convert the insoluble PGR to a water-soluble ammonium salt.

The main point to remember is that a quick rinse with these agents will not typically do a complete job. A good length of time is required for the ammonia to dissolve the PGR herbicides from the

plastic and rubber components of the sprayer. Again, the best source of information to properly neutralize a chemical is on the chemical label.

Close attention to all of these details will minimize the threat of crop injury due to herbicide contamination. This has never been more important than it is today, when a larger arsenal of different herbicides are being applied across an increasing number of acres and crops to ensure the best possible weed-management programs. (Paul Haefner Crop Life)
http://www.croplife.com/clmag/?storyid=3278

In-State CEU Meetings

Date: June 15, 2011
Time: 8:20am-2:00pm
Title: Turfgrass Pest Management Field Day
Location: Oklahoma State University Botanic Gardens Education Center and Turfgrass Research Center, Stillwater, OK

Contact: Damon Smith
405-744-9960 or damon.smith@okstate.edu

Course #: OK-11-062

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

Date: July 7 2011
Time: 9:00 am to 12:30pm
Title: OSU PSEP Lawncare
Location: OK County Extension Office

Contact: Charles Luper 405-744-5808
Course #: pending

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

Date: July 13 2011
Time: 9:00 am to 12:30pm
Title: OSU PSEP Lawncare
Location: Tulsa County Extension Office

Contact: Charles Luper 405-744-5808
Course #: pending

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

Date: July 15 2011
Time: 9:00 am to 12:30pm
Title: OSU Weed Science Field Tour
Location: Cimarron Valley Research Station Perkins OK

Contact: Joe Armstrong 405-744-9588
Course #:

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

Date: July 21, 2011
Time: 9:15 am to 5:00 pm
Title: BWI's Summer Seminar
Location: Bass Pro Broken Arrow OK

Contact: Kelly Keech (918) 251-6461
Course #: OK-11-072

CEU's:	Category(s):
4	3c
4	10

ODAFF Approved Online CEU Course Links

Wood Destroying Organism Inspection Course
www.nachi.org/wdocourse.htm

All Star Pro Training
www.allstarce.com

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 June/July 2011 are as follows:

June		July	
6	OKC	11	OKC
7	Goodwell	14	Tulsa
9	Tulsa	28	Tulsa
23	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.

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