

# PESTICIDE REPORTS

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



## NOVEMBER 2008

## CHEM

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Contact Charles Luper (405.744.5531) or Jason Baker (405.522.5993) for more information. (OSU PSEP)

## MALATHION CANCELLATION

Cheminova has requested voluntary cancellation from EPA of malathion uses in or on commercial storages/warehouses premises (**excluding stored grain facilities such as silos**), commercial transportation facilities – feed/food – empty commercial transportation facilities – commercial transportation facilities – non-feed/non-food, commercial/institutional/industrial premises/equipment (indoor), commercial/institutional/industrial premises/equipment (outdoor), dairies/cheese processing plant equipment (food contact), eating establishments, food processing plants (excluding stored grain facilities such as silos), golf course turf, greenhouse – empty, indoor hard surfaces, indoor premises, residential dust formulations, residential lawns (broadcast), residential pressurized can formulations, and sewage systems.

The use cancellation would allow for the use of existing stock in the possession of end users. (Federal Register, October 8, 2008)

## PESTICIDE DISPOSALS DATES

A reminder that the next pesticide collection dates are in December.

This is an excellent opportunity for farmers/ranchers, commercial and non-commercial applicators, city/county agencies and others to dispose of their unwanted pesticides.

There is no cost and no questions asked. The sites are in operation from 8 am to 1 pm at each location.

The dates and locations are:

Dec 2 Pittsburgh County Fairgrounds

Dec 4 Creek County Fairgrounds

Dec 9 Morrison Grain

Dec 10 W. B. Johnston south of Woodward

*Visit us on the web at [pested.okstate.edu](http://pested.okstate.edu)*

## **CARBARYL CANCELLATIONS**

EPA has received requests from Loveland Products, Value Garden Supply and Helena Chemical Company to voluntarily cancel certain uses of carbaryl (Sevin). EPA intends to accept these requests.

The requests would terminate use in or on wheat, millet, and fresh/succulent beans and peas (crop subgroup 6B), use of drench or dip treatment of seedlings or seed pieces, dust formulations in agricultural crops, granular applications to leafy vegetables (except brassica), direct applications (except for flea collars) to domestic animals (including dogs, cats, and other pets), and all indoor applications.

EPA intends to allow the use of existing stock according to label directions. (Federal Register, October 15, 2008)

## **PARKINSON'S DISEASE RESEARCH**

The National Institute of Environmental Health Sciences (NIEHS) has awarded three grants totaling \$21.5 million over a five-year period to study how environmental factors contribute to the cause, prevention and treatment of Parkinson's disease and other related disorders. Parkinson's disease is a neurodegenerative disorder that affects nerve cells, or neurons, in several parts of the brain, including neurons that use the chemical messenger dopamine to control muscle movement.

The grants were issued to Emory University to look at how environmental and genetic factors interact to alter these functions in dopamine neurons. This work is based on studies that have linked pesticide exposure, mitochondrial damage, and altered storage of the neurotransmitter dopamine. The University of California study is based on previous work that showed associations

between high levels of exposure to specific environmental pesticides and Parkinson's disease. It will build on this knowledge to determine the mechanisms of actions that may be causing this association. The third grant is to Burnham Institute for Medical Research. Their investigators will explore how environmental toxicants may contribute to Parkinson's disease by producing free radical stress that mimics or enhances the effects of known genetic mutations. (Food Industry Environmental Network, September 23, 2008)

## **PYRETHROID DELAYS PUBERTY**

A study published in *Environmental Health Perspectives* found short-term exposure to esfenvalerate delayed the onset of puberty in rats at doses two times lower than EPA's no observable effect level (NOEL).

"This could potentially affect current established exposure levels for humans, because the reference dose for esfenvalerate of 0.02 mg/kg/day is based directly on the rodent NOEL of 2.0 mg/kg/day," the Texas A&M researchers concluded. (Pesticide & Toxic Chemical News, Vol. 36, No 48 September 29, 2008)

## **SPINOSYN USE RESTRICTED**

Dow AgroSciences has announced the voluntary suspension of sale and use of Spinosyn products in Broward County and portions of Palm Beach County in Florida. This action was taken in response to evidence that western flower thrips have developed resistance to a product with the active ingredient Spinosad.

This suspension involves turf, ornamental, nursery and greenhouse, and

agricultural products.

It is believed the continuous use of these products without rotating to another mode of action created this situation. (Chemically Speaking, August 2008) **Note:** This is the major reason paying attention to label directions and mode of action information on labels is important.

## PESTICIDE USE SURVEYS

USDA had cancelled all its future pesticide use surveys. However, it was reported at the EPA Pesticide Program Dialogue Committee that USDA NASS would be conducting pesticide use surveys of wheat in 2009, corn in 2010, and soybeans in 2011. NASS will not be conducting surveys of vegetables, fruit, postharvest, nursery/floriculture, or livestock in the future.

The cost of collecting pesticide data in the past would amount to \$8.4 million out of a total budget of \$160 million.

EPA had been using NASS pesticide data to estimate acres treated and rate in EPA's risk assessments. Without that data, EPA will go back to using all the crop being treated at the maximum rate on the pesticide's label. (American Association of Pesticide Safety Educators e-mail October 10, 2008)

## USGS DATA

The USGS targeted about 80 pesticide compounds in ground water samples from 362 National Water-Quality Assessment Program (NAWQA) wells located in 18 networks across the nation. Most compounds were detected infrequently (in <3% of wells) during both sampling cycles. Only atrazine, metolachlor, prometon, and simazine were detected with sufficient frequency to perform statistical analysis of

temporal changes in both detection frequency and concentration. None of the most frequently detected parent compounds showed a statistically significant change in detection frequency between cycles, despite likely changes in national use of metolachlor and simazine during the 1990s. Sampling Cycle I was from 1993-1995 and sampling Cycle II was from 2001-2002.

Concentrations detected were generally less than 0.12 ppb – ten times lower than applicable EPA drinking-water standards.

Most of the about 80 pesticide compounds included in the laboratory analysis of NAWQA samples were detected infrequently (in fewer than 10 wells per cycle), despite detection limits as low as 0.001  $\mu\text{gL}^{-1}$ .

Acetochlor was not registered until 1994, which is the year it was included in the laboratory tests. By 2002, annual acetochlor use had grown to > 16Gg active ingredient (Gg is gigagram and a gigagram is 10 billion grams). There were no detections of acetochlor at re-sampled wells during either Cycle I or Cycle II, despite rapidly increasing use of acetochlor. This result could indicate that recharge of the sampled ground water occurred before widespread use of acetochlor, or that acetochlor's low persistence reduces its occurrence in ground water.

The dramatic decline in alachlor use coincided with the increase in acetochlor use starting in the mid-1990s. Between 1992 and 2002, alachlor use fell from about 24 Gg AI to < 3 Gg AI. Among resampled NAWQA wells, detection frequency of alachlor fell by nearly half between Cycles I and II. (Journal of Environmental Quality, September-October 2008 Issue)

## **COSMETIC PROBLEMS**

A study from the Environmental Working Group (EWG) found 16 chemicals commonly used in cosmetics and body care products in blood and urine samples from teenage girls in eight states and the District of Columbia.

According to EWG, the chemicals, which include synthetic chemical musks and parabens, can alter hormones and have been linked to “serious health risks” in laboratory animals at low doses.

The girls, aged 14-19, used an average of nearly 17 personal care products per day that contain a total of 174 different cosmetic ingredients.

“Hormone altering chemicals shouldn’t be in cosmetics, especially in products used by millions of teenage girls.” (Pesticide & Toxic Chemical News, Vol. 36, No 48 September 29, 2008)

## **TOTAL RELEASE FOGGERS**

The Center for Disease Control (CDC) has released a report on illnesses and injuries related to total release foggers (TRF).

Most TRFs contain pyrethroid, pyrethrin, or both as the active ingredients. They also contain flammable aerosol propellants that can cause fires or explosions.

They reviewed reports from CA, FL, LA, MI, NY, OR, TX and WA from 2001-2006 and found 466 cases in these states.

Illnesses or injuries often resulted from inability or failure to vacate before the TRF discharge; reentry into the treated space too soon after the TRF was discharged, excessive use of TRFs for the space being treated, and failure to notify others nearby.

CDC suggests the findings indicated that TRFs pose a risk for acute, usually temporary health effects amount users and bystanders. To reduce the risk for TRF-related health effects, integrated pest management control strategies need to be promoted. In addition, awareness of the hazards and proper use of TRFs need to be better communicated on TRF labels and in public media campaigns.

Most cases were from Florida and Louisiana. Private residents represented 85% of all the cases. (CDC MMWR, October 17, 2008)

## **NIH’S NATIONAL CHILDREN’S STUDY**

The National Institutes of Health announced that its comprehensive study to examine the effect of genes and the environment on children’s health had entered the next phase of operations. At a briefing on the latest developments in the National Children’s Study, NIH officials named the study centers funded for 2008.

The study centers are the research institutions that will recruit volunteers for the study. Study centers will recruit from study locations — counties and other geographic demarcations preselected by study scientists to be representative of the United States.

The large size of the study requires that it be carried out in stages. Today, NIH officials named the 27 study centers that will be funded in 2008, which will manage 39 locations. That brings the total of new and existing study centers to 36, covering a total of 72 study locations.

When it is fully operational, the study is expected to have approximately 40 study centers recruiting volunteers from the planned 105 study locations throughout the United States.

The National Children’s Study will follow a representative national sample of

100,000 children from before birth to age 21. The study will investigate factors influencing the development of such conditions as autism, cerebral palsy, learning disabilities, birth defects, diabetes, asthma, and obesity.

"The advantage of a long term study of development is that it will yield important health information at virtually every phase of the life cycle," said Elias A. Zerhouni, M.D., director of the National Institutes of Health. "Eventually, it will provide greater understanding of adult disorders. In the immediate future, however, we expect it to provide insight into the disorders of birth and infancy."

At the briefing, NIH officials briefly recounted the history of the study. Authorized by Congress in the Children's Health Act of 2000, the National Children's Study is being conducted by a consortium of federal agencies. This includes two NIH institutes, the Eunice Kennedy Shriver National Institute of Child Health and Human Development and the National Institute of Environmental Health Sciences, as well as the Centers for Disease Control and Prevention, and the U.S. Environmental Protection Agency.

In 2004, study researchers announced the 105 locations throughout the United States from which study participants ultimately will be recruited by the study centers. In 2005, the NIH awarded contracts for seven initial, or Vanguard, Centers, followed by 17 additional centers in 2007.

The study centers will recruit participants, collect genetic, biological, and environmental samples, and compile statistical information for study analyses on the relationships between health, genetics, and the environment. The centers consist of universities, hospitals, health departments, and private companies or represent collaborations between these kinds of organizations.

Although the study can be expected to provide information throughout its duration, information on disorders and conditions of early life are expected within the next few years. Because the study will enroll pregnant women and, in some cases, women who are not yet pregnant, study scientists hope to identify a range of early life factors that influence later development.

"With more than 100,000 participants, we believe the National Children's Study will be the largest study of pregnant women ever conducted in the United States," said National Children's Study Director Peter Scheidt, M.D., M.P.H. "We expect the study to yield information on a variety of pregnancy and birth-associated conditions."

Additional information about the National Children's Study is available from <http://www.nationalchildrensstudy.gov>. (Food Industry Environmental Network, October 5, 2008)

## **CHANGES IN TOLERANCES**

EPA has revoked certain tolerances and set deadlines for revoking other tolerances.

Apple and grape growers need to use any existing Bayleton 50% Wettable Powder because the tolerance for these crops will expire July 25, 2010. (Federal Register September 24, 2008)

## **CAUSE LABELING**

EPA has announced it is suspending, for now, proposals for approving third-party endorsements and charitable tie-ins on pesticide labels.

The cause marketing claims and third-party endorsements as outlined in the plan "generally would not contribute meaningfully to improving public health and the environment," EPA concluded.

This was started by Clorox Company

placing the Red Cross symbol on a number of its product lines. The company provided Red Cross with a small return for product containing the symbol.

The State Lead Agencies were strongly against this process. (Pesticide & Chemical News, Vol. 36 No 49, October 6, 2008)

## **NURSING HOME EVACUATED**

A New Jersey pest control applicator made an application of DeltaDust in the basement of a nursing home and set off the smoke detector that set off all the alarms in the nursing home.

Because the alarms went off, HazMat was called. Upon arrival they had the facility evacuated and began a cleaning process. All residents were back the following morning and no illnesses were reported.

The New Jersey Department of Environmental Protection regulates pesticide application and was not notified of the situation until the following Monday.

An interesting item in the news report was that “pesticide vapors” and “mist” was coming out of the vents. Deltadust is a dust formulation. (PCT-Newsletter, September 29, 2008 and NJ Department of Environmental Protection)

## **DRIFT COST \$1 MILLION**

Western Farm Services Inc., a Fresno, CA based pesticide application company, has been ordered to pay \$1 million in damages to Jacobs Farm/Del Cabo for spraying too close and ruining the company’s ability to put organic

labels on its dill, sage and rosemary crops.

Western Farm Service might not have intended to contaminate the herbs being grown by Jacobs Farm when it sprayed chlorpyrifos, diazinon and dimethoate on the Brussels sprouts of neighboring farmers. But in a ruling issued by a jury for the Superior Court of CA, Santa Cruz, found that the unintended contamination caused by pesticides evaporating after application violated the rights of the organic crop grower.

Western Farm’s actions “resulted in trespass of the pesticides onto Jacobs Farm and were legally determined to be a nuisance depriving Jacobs Farm of the right to use and enjoy the land, caused by negligence on the part of Western Farm Services,”

Jacobs Farm stopped harvesting its herbs and notified Western Farm of the problem after it discovered trace residues of pesticide on its crops in October 2006. But “initial outreach to regulators and the pesticide applicator proved fruitless,” Jacobs Farm says, so the organic farmer filed suit in May 2007.

Western Farms has stated it likely will appeal the court decision. (Pesticide & Chemical News, Vol. 36 No 49, October 6, 2008 and Vol. 36 No 50, October 13, 2008)

## **ANSI MEETING MIXED**

The inaugural meeting of a committee chosen to develop a sustainable agriculture standard for adoptions by the American National Standards Institute (ANSI) got mixed review with conventional agriculture representative expressing satisfaction but organic representatives voicing disappointment.

Controversy has dogged the ANSI

standard development process from its inception last year. Critics of a draft standard for trial use (DSTU) proposed by the organizers had speculated that representatives of conventional agriculture would decline to participate on the committee because of the document's bias against biotechnology and other new technologies.

The committee chosen by the Wisconsin-based Leonardo Academy includes numerous representative of organic and small-scale farming, but it also includes representative of major agribusiness trade associations as well-known food companies such as Kellogg and General Mills.

Russell Williams, regulatory relations director for the American Farm Bureau Federation and a leading skeptic, described the meeting as "a huge success for the vast majority of agriculture." Citing a decision to abandon the controversial DSTU as a starting point for discussion, "That document was fairly antagonistic, and it was good to get it off the table. We talked about things we can agree on, not things we disagree on. I'm thrilled with the outcome and looking forward to see where the process takes us."

However, organic advocates are clearly disappointed. The National Organic coalition says in a letter to the committee that it can't support a "sustainable" label "because of what appears the inevitability that it will be 'less than organic,' thus reversing progress organic agriculture has made in recent decades and 'effectively driving markets to lower standards' that do not protect human health and the environment."

Some of the "difficult issues" facing the committee are:

- The relationship between organic, mainstream and sustainable

agriculture

- The place of genetically engineered crops in sustainable agriculture
- The degree to which sustainable agriculture standards should establish a path for continuous improvement
- Inclusiveness of small and mid-size farms, as well as mainstream and conventional agriculture
- Sequestration of carbon in soils and the role of agriculture in the fight against climate change
- Strength of labor protections
- The intersection of product safety and sustainability; and
- Whether the scope of the standard should extend beyond plant agriculture to include livestock and other agriculture sectors.

The committee created six working groups to conduct a needs assessment, review and articulate the committee's mission, collect reference documents, report on ways to measure sustainability, identify potential funding sources, and outline outreach opportunities for soliciting stakeholder involvement. (Pesticide & Chemical News, Vol. 36 No 49, October 6, 2008)



Jim T Criswell  
Pesticide Coordinator

# PESTICIDE APPLICATOR TEST SESSIONS

## NOVEMBER 2008

All 23 exams will be available at each session. **PLEASE MAKE SURE** you know in advance which specific exam(s) you need to take (e.g. Service Tech, Ornamental & Turf, Core, Right-of-way, General Pest, etc.).

**RESERVATIONS ARE NOT REQUIRED FOR THESE TEST SESSIONS; they are all open to anyone wishing to test for certification. Tests are \$50.00 each; please bring check, money order or the exact amount of cash needed for testing, along with a form of photo ID. There is no fee for government employees in the discharge of their official duties.**

Unless otherwise noted, sessions are located as follows:

ALTUS	WESTERN OK STATE COLLEGE 2801 N MAIN, RM A23
ENID	GARFIELD CO. EXT OFFICE 316 E. Oxford
GOODWELL	OKLA PANHANDLE RESEARCH & EXT CENTER Rt. 1 Box 86M
HOBART	KIOWA CO. FAIRGROUNDS Exhibit Building
LAWTON	GREAT PLAINS COLISEUM Annex Rm 920 S. Sheridan Rd.
McALESTER	KIAMICHI TECH CENTER on HWY 270 W of HWY 69
OKC	OKLA CO. EXT 930 N. Portland, Auditorium - <u>Park &amp; enter</u> from the North side
TULSA	NE CAMPUS OF TCC 3727 E. Apache (Apache & Harvard) Engineering Tech Rm. 127

**If you have any questions, please call (405) 522-5950 or e-mail**  
**[eva.landeros@oda.state.ok.us](mailto:eva.landeros@oda.state.ok.us)**

**Testing will begin at 9:00 am. NO NEW APPLICANTS WILL BE ACCEPTED AFTER  
11 AM.**

**ALL TESTS must be completed by 1:00 pm**

## 2008 Test Sessions

<b>November</b>	
<b>4</b>	<b>GOODWELL</b>
<b>6</b>	<b>TULSA</b>
<b>10</b>	<b>OKC</b>
<b>17</b>	<b>HOBART</b>
<b>20</b>	<b>TULSA</b>
<b>20</b>	<b>LAWTON</b>
<b>24</b>	<b>OKC</b>
<b>December</b>	
<b>2</b>	<b>GOODWELL</b>
<b>4</b>	<b>TULSA</b>
<b>8</b>	<b>OKC</b>
<b>11</b>	<b>ENID</b>
<b>18</b>	<b>TULSA</b>
<b>22</b>	<b>OKC</b>

## OPPORTUNITIES TO EARN CEU'S

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### NOVEMBER 3, 2008

CATEGORY: 3a – ORNAMENTAL & TURF  
CEU'S: 2  
CATEGORY: 7a – GENERAL PEST  
CEU'S: 4  
CATEGORY: 7b – STRUCTURAL  
CEU'S: 3  
CATEGORY: 8 – PUBLIC HEALTH  
CEU'S: 2  
CATEGORY: 10 – DEMONSTRATION & RESEARCH  
CEU'S: 4  
SPONSOR: ESTES  
TOPIC: PEST CLASS  
PLACE: CLARION CONVENTION CENTER  
OKLAHOMA CITY, OK  
CONTACT: AMY KEITH McDONALD  
254.445.4359  
FEE: YES

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### NOVEMBER 3, 2008

CATEGORY: 3a – ORNAMENTAL & TURF  
CEU'S: 5  
CATEGORY: 6 – RIGHT-OF-WAY  
CEU'S: 2  
CATEGORY: 10 – DEMONSTRATION & RESEARCH  
CEU'S: 5  
SPONSOR: ESTES  
TOPIC: TURF CLASS  
PLACE: CLARION CONVENTION CENTER  
OKLAHOMA CITY, OK  
CONTACT: AMY KEITH McDONALD  
254.445.4359  
FEE: YES

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**NOVEMBER 4, 2008**

CATEGORY: 3a – ORNAMENTAL & TURF  
CEU'S: 4  
CATEGORY: 7a – GENERAL PEST  
CEU'S: 3  
CATEGORY: 7b – STRUCTURAL  
CEU'S: 2  
CATEGORY: 8 – PUBLIC HEALTH  
CEU'S: 1  
CATEGORY: 10 – DEMONSTRATION & RESEARCH  
CEU'S: 4  
SPONSOR: ESTES  
TOPIC: CEU WORKSHOP  
PLACE: RENAISSANCE HOTEL  
6808 S. 107<sup>TH</sup> EAST AVENUE  
TULSA, OK  
CONTACT: AMY KEITH McDONALD  
254.445.4359  
FEE: YES

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**NOVEMBER 7-8, 2008**

CATEGORY: 3c – NURSERY/GREENHOUSE  
CEU'S: PENDING  
CATEGORY: 10 – DEMONSTRATION & RESEARCH  
CEU'S: PENDING  
SPONSOR: OHIO FLORIST ASSOCIATION  
TOPIC: GROWER TALKS SUSTAINABILITY CONFERENCE  
PLACE: FRISCO, TX  
CONTACT: MICHELLE MAZZA  
614.487.1117  
FEE: YES

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**NOVEMBER 5-7, 2008**

CATEGORY: 1a – AGRICULTURAL PLANT  
CEU'S: 7  
CATEGORY: 10 – DEMONSTRATION & RESEARCH  
CEU'S: 7  
SPONSOR: OARA  
TOPIC: AGRICULTURE PEST MANAGEMENT  
PLACE: CLARION CONVENTION CENTER  
OKLAHOMA CITY, OK  
CONTACT: TAMMY MILLER  
580.233.9516  
FEE: YES

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**NOVEMBER 11-13, 2008**

CATEGORY: 1a – AGRICULTURAL PLANT  
CEU'S: 2  
CATEGORY: 2 – FORESTRY  
CEU'S: 1  
CATEGORY: 8 – PUBLIC HEALTH  
CEU'S: 1  
CATEGORY: 10 – DEMONSTRATION & RESEARCH  
CEU'S: 2  
SPONSOR: COLORADO AGRICULTURAL AVIATION ASSOCIATION  
TOPIC: ANNUAL MEETING  
PLACE: COLORADO SPRINGS, CO  
CONTACT: DOLLE LEHRKAMP  
719.768.3367  
FEE: YES

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**NOVEMBER 11-13, 2008**

CATEGORY: 1a – AGRICULTURAL PLANT  
CEU'S: 4  
CATEGORY: 10 – DEMONSTRATION & RESEARCH  
CEU'S: 4  
SPONSOR: COTTON INCORPORATED  
TOPIC: CROP MANAGEMENT SEMINAR  
PLACE: TUNICA, MS  
CONTACT: KAY WRIEDT  
919.678.2271  
FEE: YES

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**NOVEMBER 19-21, 2008**

CATEGORY: 3a – ORNAMENTAL & TURF  
CEU'S: PENDING  
CATEGORY: 8 – PUBLIC HEALTH  
CEU'S: PENDING  
CATEGORY: 10 – DEMONSTRATION & RESEARCH  
CEU'S: PENDING  
CATEGORY: 11 – BIRD & PREDATORY ANIMAL  
CEU'S: PENDING  
SPONSOR: NPMA  
TOPIC: NUSIANCE BIRD & WILDLIFE MGT. CONFERNECE  
PLACE: ST. LOUIS, MO  
CONTACT: CINDY KENNEDY  
703.352.6762  
FEE: YES

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**DECEMBER 3, 2008**

CATEGORY: 7b – STRUCTURAL  
CEU'S: PENDING  
CATEGORY: 10 – DEMONSTRATION & RESEARCH  
CEU'S: PENDING  
SPONSOR: OSU PSEP  
TOPIC: STRUCTURAL PEST CONTROL  
PLACE: MARRIOTT SOUTHERN HILLS  
TULSA, OK  
CONTACT: KEVIN SHELTON FOR PROGRAM INFORMATION  
405.744.5531  
AGRICULTURAL CONFERENCE FOR REGISTRATION INFORMATION  
405.744.6489  
FEE: YES

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**DECEMBER 10, 2008**

CATEGORY: 7b – STRUCTURAL  
CEU'S: PENDING  
CATEGORY: 10 – DEMONSTRATION & RESEARCH  
CEU'S: PENDING  
SPONSOR: OSU PSEP  
TOPIC: STRUCTURAL PEST CONTROL  
PLACE: CLARION CONVENTION CENTER  
OKLAHOMA CITY, OK  
CONTACT: KEVIN SHELTON FOR PROGRAM INFORMATION  
405.744.5531  
AGRICULTURAL CONFERENCE FOR REGISTRATION INFORMATION  
405.744.6489  
FEE: YES

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**DECEMBER 8-11, 2008**

CATEGORY: 1a – AGRICULTURAL PLANT  
CEU'S: 2  
CATEGORY: AERIAL  
CEU'S: 2  
CATEGORY: 10 – DEMONSTRATION & RESEARCH  
CEU'S: 2  
SPONSOR: NAAA  
TOPIC: ANNUAL CONVENTION  
PLACE: LAS VEGAS, NV  
CONTACT: ANDREW MOORE  
202.546.5722  
FEE: YES

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**DECEMBER 17, 2008**

CATEGORY: 1a – AGRICULTURAL PLANT  
CEU'S: PENDING  
CATEGORY: 10 – DEMONSTRATION & RESEARCH  
CEU'S: PENDING  
SPONSOR: CCA  
TOPIC: WINTER CROP SCHOOL  
PLACE: WES WATKINS CENTER  
OSU CAMPUS  
STILLWATER, OK  
CONTACT: JEFF EDWARDS FOR PROGRAM CONTENT  
405.744.6031  
AGRICULTURAL CONFERENCE FOR REGISTRATION  
405.744.6489  
FEE: YES

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**JANUARY 6, 2009**

CATEGORY: 3a – ORNAMENTAL & TURF  
CEU'S: 2  
CATEGORY: 10 – DEMONSTRATION & RESEARCH  
CEU'S: 2  
SPONSOR: WESTERN NURSERY & LANDSCAPE ASSOCIATION  
TOPIC: ANNUAL CONVENTION  
PLACE: OVERLAND PARK, KS  
CONTACT: SARAH WOODY BIBENS  
888.233.1876 X 701  
FEE: YES

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**JANUARY 19-21, 2009**

CATEGORY: 1a – AGRICULTURAL PLANT  
CEU'S: PENDING  
CATEGORY: AERIAL  
CEU'S: PENDING  
CATEGORY: 10 – DEMONSTRATION & RESEARCH  
CEU'S: PENDING  
SPONSOR: OAAA  
TOPIC: ANNUAL CONFERENCE  
PLACE: BILTMORE HOTEL  
401 S MERIDIAN  
OKLAHOMA CITY, OK  
CONTACT: SANDY WELLS  
405.341.3548  
FEE: YES

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**JANUARY 26-30, 2009**

CATEGORY: 7a – GENERAL PEST  
CEU'S: 8  
CATEGORY: 7c – FUMIGATION  
CEU'S: 6  
CATEGORY: 10 – DEMONSTRATION & RESEARCH  
CEU'S: 8  
CATEGORY: 11 – BIRD & PREDATORY ANIMAL  
CEU'S: 2  
SPONSOR: BUNGE  
TOPIC: EXECUTIVE SEMINAR  
PLACE: ST LOUIS, MO  
CONTACT: WANDA MAXFILED  
217.442.1800  
FEE: YES

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**ONGOING**

CATEGORY: 3a – ORNAMENTAL & TURF  
CEU'S: 4  
CATEGORY: 10 - DEMONSTRATION & RESEARCH  
CEU'S: 4  
SPONSOR: UNIVERSITY OF GEORGIA  
TOPIC: PRINCIPLES OF TURFGRASS MANAGEMENT  
PLACE: CORRESPONDENCE COURSE  
CONTACT: PHYLISS BREWER  
706.542.6692  
FEE: YES

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**ONGOING**

CATEGORY: 3a – ORNAMENTAL & TURF  
CEU'S: 2  
CATEGORY: 7a – GENERAL PEST  
CEU'S: 1  
CATEGORY: 7b - STRUCTURAL  
CEU'S: 1  
CATEGORY: 10 - DEMONSTRATION & RESEARCH  
CEU'S: 6  
CATEGORY: ALL CATEGORIES  
CEU'S: 2  
SPONSOR: CHRYSALIS EDUCATION & CONSULTING  
TOPIC: O&T, GENERAL PEST & STRUCTURAL  
PLACE: HOLIDAY INN  
CONTACT: 3101 N. DALLAS PKW  
PLANO, TX  
DENNIS MALONEY  
806.468.8583  
FEE: YES

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**ELECTRONIC PROGRAMS**

CATEGORY: VARIOUS  
CEU'S: 1  
SPONSOR: UNIVAR  
TOPIC: VARIOUS  
PLACE: INTERNET – [WWW.PESTWEB.COM](http://WWW.PESTWEB.COM)  
CONTACT: JEFF SMITH  
916.371.7602  
FEE: NO

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**ELECTRONIC PROGRAMS**

CATEGORY: 3a – ORNAMENTAL & TURF  
CEU'S: 1  
SPONSOR: UNIVAR  
TOPIC: WEED CONTROL – THE HERBICIDES #604  
PLACE: INTERNET – [WWW.PESTWEB.COM](http://WWW.PESTWEB.COM)  
CONTACT: JEFF SMITH  
916.371.7602  
FEE: NO

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**ELECTRONIC PROGRAMS**

CATEGORY: 7a – GENERAL PEST  
CEU'S: 1  
SPONSOR: UNIVAR  
TOPIC: GOING GREEN & ORGANIC #207  
PLACE: INTERNET – [WWW.PESTWEB.COM](http://WWW.PESTWEB.COM)  
CONTACT: JEFF SMITH  
916.371.7602  
FEE: NO

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**ELECTRONIC PROGRAMS**

CATEGORY: 7a – GENERAL PEST  
CEU'S: 3  
CATEGORY: 7b - STRUCTURAL  
CEU'S: 1  
SPONSOR: WHITMIRE MICRO-GEN  
TOPIC: PRESCRIPTION TREATMENT UNIVERSITY  
PLACE: WHITMIRE WEB SITE  
CONTACT: JODI WILSON  
880.777.8570  
FEE: YES

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**ELECTRONIC PROGRAMS**

CATEGORY: VARIOUS  
CEU'S: VARIOUS  
SPONSOR: PEST NETWORK  
TOPIC: VARIOUS  
PLACE: PESTNETWORK.COM  
CONTACT: MEL YELL  
512.626.1645 CELL  
FEE: YES

**ELECTRONIC PROGRAMS**

CATEGORY: 1a – AGRICULTURAL PLANT  
CEU'S: 1  
CATEGORY: 10 – DEMONSTRATION & RESEARCH  
CEU'S: 1  
SPONSOR: Pest Network  
TOPIC: GREENBUG MANAGEMENT  
PLACE: [www.pestnetwork.com](http://www.pestnetwork.com)  
CONTACT: CHARLES COLE  
979.732.0501  
FEE: YES

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**ELECTRONIC PROGRAMS**

CATEGORY: 1a – AGRICULTURAL PLANT  
CEU'S: 1  
CATEGORY: 10 – DEMONSTRATION & RESEARCH  
CEU'S: 1  
SPONSOR: SOUTHWEST FARM PRESS  
TOPIC: WEED RESISTANCE MANAGEMENT IN COTTON  
PLACE: INTERNET – [WWW.SOUTHWESTFARMPRESS.COM](http://WWW.SOUTHWESTFARMPRESS.COM)  
CONTACT: CHERYL OGLE  
559.322.6558  
FEE: NO

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**ELECTRONIC PROGRAMS**

CATEGORY: 1a – AGRICULTURAL PLANT  
CEU'S: 1  
CATEGORY: 10 – DEMONSTRATION & RESEARCH  
CEU'S: 1  
SPONSOR: SOUTHWEST FARM PRESS  
TOPIC: SPRAY DRIFT MANAGEMENT  
PLACE: [WWW.SOUTHWESTFARMPRESS.COM](http://WWW.SOUTHWESTFARMPRESS.COM)  
CONTACT: HARRY CLINE  
512.288.8288  
FEE: YES

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**ELECTRONIC PROGRAMS**

CATEGORY: VARIOUS  
CEU'S: VARIOUS  
SPONSOR: UNIVAR  
TOPIC: VARIOUS – GENERAL PEST CONTROL  
PLACE: [HTTP://WWW.PESTWEB.COM](http://www.pestweb.com)  
CONTACT: VIC PRRALEZ  
888.755.5566  
FEE: YES

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