

# WHAT'S HAPPENING

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 ENTOMOLOGY AND PLANT PATHOLOGY—EPP#60

## End of Endosulfan (Thiodan) by 2010

**By Darrell Hensley**

Bayer has stated that it will end distribution of the pesticide [endosulfan](#) by 2010, and will be replacing it with products that have a significantly better risk profile (safer alternatives). Bayer's decision comes after years of global campaigning by the *Pesticide Action Network North America* (PANNA) and its partners and allies who are against pesticide use. It has been reported by these organizations, that endosulfan is linked to autism, birth defects and abnormal male reproduction, as well as deaths and acute injuries to farmers through direct contact. Endosulfan is banned in over 60 countries including those in the European Union. In the United States, endosulfan is used primarily on cotton in the state of California and tomatoes in Florida. Several lawsuits and legal petitions have been filed by groups, including Beyond Pesticides, concerned about the chemical's adverse health effects. PANNA will continue to work to ensure that endosulfan is included in the list of chemicals that are banned globally.

Last week, Beyond Pesticides reported on [a new study](#) that found that insecticides, such as endosulfan, used in highly populated agricultural areas of California's Central Valley affect amphibians that breed in the Sierra Nevada Mountains to the east. The study adds to the increasing evidence that pesticides impact areas and wildlife species that are miles from sources of pesticide application. Last month the Center for Biological Diversity notified the U.S. Environmental Protection Agency (EPA) of its intent to file suit against the agency for failing to consider impacts to the polar bear and its Arctic habitat from toxic contamination resulting from pesticide use, including endosulfan, in the U.S that are known to be transported to the Arctic via various atmospheric, oceanic, and biotic pathways. Several anti-pesticide organizations suggest that pesticides are being biomagnified with each step higher in the food web, reaching some of their greatest concentrations in polar bears, the apex predators of the Arctic.

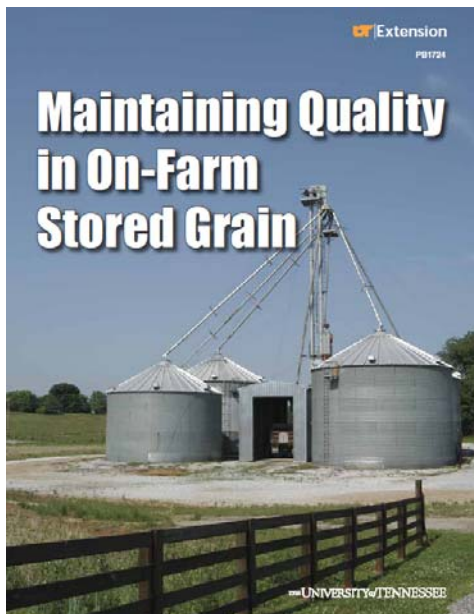
*Source: Pesticide Action Network North America*

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## Storing Grain

**By Russ Patrick**

It will not be too long before producers begin to store corn. Tennessee Agricultural Statistics Service has projected that the state should have a bumper crop this year. Several producers have inquired about storing grain in bags. One producer in Fayette County has been in constant contact with us about storing his grain and treating some older grain from last year. The producer purchased some Actellic 5E to treat grain intended for bin storage. He will remove old grain from the bin and refill it with the older grain, after it has been treated. The producer plans to use Tempo SC Ultra to treat his empty bins and use other insecticide products for corn recently harvested, which is planned for storage. He had some insect problems in last years grain and for that reason, he will be using an insecticide this year. Actellic, should cost approximately 7 cents/bushel and is worth the investment. Jeff Via and I have been helping a producer with his planning and we have suggested new methods for preparing him for upcoming bin filling with his new crop of corn. One critical note: If you intend to store corn, make certain the corn is 14% or less moisture content, when you fill the bin with new grain, otherwise you may experience mold growth and insect infestation. The following URL @ "<http://www.cdms.net/LDat/ld4FS002.pdf>" will provide more information concerning Actellic 5E.



**Drying stored grain**

The following URL <http://eppserver.ag.utk.edu/Extension/Stored-Grain/Stored-grain-id.pdf> may provide you with some additional information concerning stored grain pests which are commonly observed in Tennessee.



**Meal moths and grain beetles**



**Checking moisture and temperature**

## Grain Bin Safety

**By Russ Patrick**

A producer in West Tennessee had an unfortunate incident this past week. He had a 29 year old grain bin collapsed from the center of the bin and toppled over into one of his other bins. The older bin was full of wheat when it collapsed. The bin probably deteriorated over time due to loading stress and possible corrosion, which may have caused the metal to weaken.

Remember, it is important to clean off the caked on areas of moldy grain and remove it between seasons. Keeping a bin clean after each year's harvest will go a long way in keeping the bin in good condition, as well as reducing common grain pests. This unfortunate accident could have happened to anyone, and was a very expensive lesson to learn.

## New Products & Label Changes—August, 2009

**By Gene Burgess**

### Insecticides & Repellents

*Permethrin 3.2* (AI= permethrin) RUP -- control of insects in various crops. (Arysta LifeScience)

*Natria*, (AI= canola oil) RTU -- kills stages of insects including eggs on roses, flowers and fruits & veg.. (Bayer)

*Aerother* (AI= tetramethrin) -- wasp and hornet killer used indoor and outdoor. (Ensystem II, Inc)

*Grub Control w/Arena* (AI= clothianidin) -- broad-spectrum insecticide that kills white grubs . (Green Light)

*Lambdastar 1 CS* (AI= lambda-cyhalothrin) RUP -- control various insect pests on selected crops. (LG Int'l)

*Heavy Weight* (AI= bifenthrin) -- multi-insect & fire ant killer granules up to 3 months . (Maid Brands, Inc).

*Xytect 2F* (AI= imidacloprid) -- foliar and systemic insect control in turfgrass and sod. (Rainbow Treecare)

*Solera Abamectin 0.15EC* (AI= abamectin) RUP -- control various insect pest in crops. (Solera ATO, LLC)

*Bifenthrin Termiticide/Insecticide* (AI= bifenthrin) -- control pests indoors and outdoors. (Speckoz Inc)

*Ultratec DS OB AC* (AI= detamethrin) -- for the formulation of insecticides only. (Valent )

*Ternacell Mosquito Repellent* (AI= allethrin) -- repels mosquitoes and black flies. (Schawbel Corp)

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**Herbicides & Plant Growth Regulators**

*Eliminator Weed & Grass killer* (AI= glyphosate) -- kills over 175 types of weeds. (Chemsico)

*Oryzalin 4 Pro* (AI= oryzalin) -- control of annual and perennial grasses and broadleaf weeds. (Alligare LLC)

*Barricade 20-0-10* (AI= nitrogen) -- preemergence control of grass and broadleaf weeds. (Anderson Lawn Fert)

*Natria Grass & Weed* (AI= ammoniated soap) RTU -- kills weeds and grass on patios, driveways etc. (Bayer)

*Prequel* (AI= rimsulfuron) RUP -- for weed control in field corn in various states. (Dupont)

*Hawkeye* (AI= dicamba) -- weed control in corn, sorghum, small grains, pasture, hay, range. (Mey Corporation)

*Compare-N-save* (AI= glyphosate) -- control many annual and perennial grasses . (Ragan and Massey Inc)

**Fungicides, Rodenticides, & Other Pesticides**

*Captan 50 Wettable Powder* (AI= captan) -- fungicide for plant disease control . (Arysta LifeScience)

*Trio Extra* (AI= azoxystrobin) -- broad-spectrum seed treatment fungicide. (Loveland Products)

*Vital* (AI= potassium phosphate) -- systemic fungicide for the control of various diseases . (Luxembourg-Pamol)

*Propiconazole 41.8% EC* (AI= propiconazole) -- broad spectrum fungicide for plant diseases. (Solera ATO, LLC)

*Spectator* ( AI= propiconazole) -- control of turf and ornamental diseases. (Syngenta Crop)

<u>Key</u>	AI = active ingredient	IGR= insect growth regulator	RTU = ready-to-use
	EPA reg = EPA Registration Number	PCO = for pest control professionals	RUP = restricted-use pesticide
	HLT = lawn and/or outdoor ornamental use	(name in parenthesis) = Registrant	WSB = water soluble bags

**Note:** this information has been adapted from TDA's August issue of The Registration review. For more information please call (615) 837-5340, or email [John.ewell@state.tn.us](mailto:John.ewell@state.tn.us).

## Plant & Pest Diagnostic Highlights

**By Bruce Kauffman**

We received 115 samples from July 28 to August 9, 2009, including 52 samples via the UT Diagnostic Web Site.

**FIELD CROPS :** Frogeye leaf spot and yellowing leaves due wet sites for Burley 14L8 tobacco; possible ozone damage to soybean leaves; phytophthora seedling blight and sudden death syndrome (*Fusarium solani f. sp. glycines*) of soybeans.

**FRUIT & VEGETABLES :** Peach scab disease of fruit (*Cladosporium carpophilum*); possible southern blight (*Sclerotium rolfsii*) of pepper; possible fusarium crown rot and/or gummy stem blight of pumpkin; possible bacterial soft rot of cabbage; sunscald of tomato fruit; frogeye leaf spot (*Botryosphaeria sp.*) of apple; powdery mildew of leaves and leaf yellowing due to excessive moisture of squash; possible pH and/or nutrient problem of okra; insecticide and fungicide mixture causing spotting of fruit of grape; symptoms of eastern filbert blight (*Anisogramma anomala*) on filbert (hazelnut); septoria leaf spot of tomato leaves and stem; leaf scorch fungal disease and mycosphaerella leaf spot present on strawberry leaves; herbicide injury and low pH of blueberry; late blight (*Phytophthora infestans*) of tomato leaves and fruit; possible phytophthora crown rot of pepper.

**INSECTS, CRUSTACEANS & MITES :** Possible Japanese beetle or June beetle feeding on peach fruit; spider mite damage to post oak leaves; squash bugs and squash vine borers damaging pumpkin; bess beetle adult feeding on decayed wood of maple; jumping oak leaf gall caused by gall wasps on red oak; possible aphid and/or stink bug feeding on okra; possible aphid feeding on hydrangea leaves; pine sawyer and Ips beetle infesting eastern white pine; possible stem borers of espaliered pears and Bradford pears; serpentine leaf miner damage to tulip poplar and sweetbay magnolia; aphid- or scale-caused honeydew on tulip poplar leaves; lace bug and mulberry whiteflies on sycamore leaves; oak lecanium scale and sooty mold growth on twigs of willow oak; possible green-striped mapleworm feeding on maple; bagworms on evergreens; euonymus scale on euonymus.

**INSECTS AND OTHER PESTS AROUND THE HOME :** Ivory marked long-horned beetle; possible aerial yellowjacket; male eastern dobsonfly; possible blacklegged tick nymph from New York; odorous house ant; termite worker; possible acrobat ant; one of ground bees or wasps; cicada killer wasp; carpet beetle adult; ground beetle; fungus gnats; humpbacked flies; foreign grain beetles; carpenter ant; pleasing fungus beetle.

**ORNAMENTALS & TREES :** Possible high soluble salts, overly wet or overly dry site and girdling roots causing leaf scorch on sugar maple; septoria leaf spot of river birch; possibly overly wet site causing fall leaf coloration of dogwood; artillery fungus spores on shrub leaves and lawn furniture; scab leaf spot disease of crabapple; possible site-related fall leaf coloration and septoria leaf spot of dogwood; decline and bleeding canker (*Phytophthora sp.*) of sugar maple; powdery mildew of dogwood leaves; possible excessive moisture causing needle drop

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Norway spruce; possible phytophthora crown rot of petunia; anthracnose leaf disease and tubakia leaf spot of chestnut oak; possible leucostoma canker and root decline due to overly wet or overly dry site for cherry; gray mold (*Botrytis* sp.) and possible root disease (fusarium stem & crown rot or southern blight) of rose mallow; 2,4-D damage to tulip poplar; normal leaf yellowing of older leaves of snowball bush; plant stress of winter creeper (*Euonymus fortunei*) due to competition and dry soil; possible powdery mildew, and/or very high levels of calcium or nitrates on hydrangea; possible brown spot needle disease of Scotch pine; possible black stain root disease of eastern white pine; gray mold leaf and stem disease and powdery mildew of verbena; possible virus and edema of hibiscus; possible overly wet or overly dry site causing older cane death of forsythia; overly wet site causing foliar burn of arborvitae; hydrophobic root ball causing root dieback of rhododendron; high pH and feeder root death due to overly wet site or above ground root exposure on eastern hemlock; rapid death of espaliered pears possibly due to dying roots on overly wet site; marginal leaf scorch caused by overly wet or over dry site and/or girdling roots of Bradford pear; possible iron chlorosis and tubakia leaf spot of pin oak; powdery mildew on tulip poplar, red oak and sweetbay magnolia leaves; mycosphaerella leaf spot of tulip poplar; plant stress symptoms of boxwood due to roots being overly wet; cedar-quince rust of hawthorn; tree stress and twig dieback from 2007 drought on dogwood; overly wet site and root decline of viburnum and aromatic sumac; possible cercospora leaf disease of Leyland cypress; possible drainage problem and/or improper variety for Tennessee causing leaf yellowing of fig; powdery mildew of sycamore leaves; root decline of inkberry (holly) possibly due to winter damage and/or site establishment problem; pestalotiopsis twig and needle blight of arborvitae; twig dieback due to drought and/or possible bacterial leaf scorch of pin oak; feeder root decline of hemlock due to 2007 drought; anthracnose (*Elsinoe* sp.) leaf spot of southern red oak; low pH causing a possible reduced absorption of phosphorus for shagbark hickory, pecan and persimmon seedlings; possible virus of chrysanthemums; lichens on trees; oyster mushroom decaying elm trunk; bolete (possibly *Boletus speciosus* - a mycorrhizal species) mushroom found under a sawtoothed oak; miscanthus mealybug on zebragrass; older leaf drop of redbud and hackberry (possible summer dormancy); anthracnose of horsechestnut; possible shothole disease of cherry.

**TURF & FORAGES :** Poor nodulation of alfalfa due to possible poor rhizobium inoculation, new alfalfa field and/or soil pH problem; thick organic mat restricting oxygen and water levels for 'Dominant' bentgrass; slime mold (*Physarum* sp.) on fescue and clover.

## OTHER UT NEWSLETTERS WITH PEST MANAGEMENT INFORMATION

### Fruit Pest News

<http://web.utk.edu/~extepp/fpn/fpn.htm>

### Tennessee Crop and Pest Management Newsletter

[http://www.utextension.utk.edu/fieldCrops/cotton/cotton\\_insects/ipmnewsletters.htm](http://www.utextension.utk.edu/fieldCrops/cotton/cotton_insects/ipmnewsletters.htm)

### Ornamental Pest and Disease Update

<http://soilplantandpest.utk.edu/publications/ornamentalnwsltr.html>

### School IPM Newsletter

<http://schoolipm.utk.edu>

### Tennessee Soybean Rust Hotline - 877-875-2326

### USDA Soybean Rust Web Site

<http://www.sbrusa.net>

### Pesticide Safety Education Program, PSEP

<http://PSEP.utk.edu>

### IPM & Pest Management

<http://eppserver.ag.utk.edu/Extension/TN-PMIN/FYI/FYI.html>

### Entomology and Plant Pathology Web Site

<http://eppserver.ag.utk.edu>

### This and other "What's Happening" issues can be found at

<http://eppserver.ag.utk.edu/Whats/whatshap.htm>

## Precautionary Statement

To protect people and the environment, pesticides should be used safely. This is everyone's responsibility, especially the user. Read and follow label directions carefully before you buy, mix, apply, store or dispose of a pesticide. According to laws regulating pesticides, they must be used only as directed by the label.

## Disclaimer

This publication contains pesticide recommendations that are subject to change at any time. The recommendations in this publication are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. The label always takes precedence over the recommendations found in this publication.

Use of trade or brand names in this publication is for clarity and information; it does not imply approval of the product to the exclusion of others that may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product. The author(s), the University of Tennessee Institute of Agriculture and University of Tennessee Extension assume no liability resulting from the use of these recommendations.

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