

# WHAT'S HAPPENING

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## Avoid Stress in 2008

By Frank Hale

Your doctor has probably given you the good advice over the years to avoid stress whenever possible. While this is often hard to do with our hectic lifestyles, it still rings true. The same can be said for plants in the landscape and nursery. They have been through the mill with the Easter freeze about this time last year and the extreme drought. Make a special effort to inspect trees for signs of borer damage. Especially inspect trees that were not protected last year with chemical control for common wood-boring insects such as clearwing moth borers, flatheaded borers, root collar borers, bark beetles, and ambrosia beetles. Already, I have heard reports that dogwoods have been hit hard by flatheaded borers and probably some dogwood borer (clearwing moth). While some borers (roundheaded borers, flatheaded borers) can be controlled with a preventive soil drench of a neonicotinoid insecticide such as Merit, most other

borers need a properly timed protective insecticide bark spray.

Note that the granulate ambrosia beetle adults are active now. They were caught in an alcohol baited trap for the first time this year on March 28 in McMinnville by TSU entomologist

Dr. Jason Oliver. Look for the frass tubes made as these insects bore into the wood to form their brood galleries. In the landscape, spray the trunk or branches with permethrin (Astro) as a preventative spray or at the first sign of boring.

Additionally, extra care should be taken this year to avoid defoliation of trees and shrubs. Many plants only have enough reserves to put out leaves once this spring. If



**Initial fall cankerworm feeding damage**

trees are defoliated this month by spring and fall cankerworms, they may not have adequate carbohydrate reserves to put out a new flush of leaves later in May. This could easily push the tree over the edge where it could not recover. Tiny holes from fall cankerworm are already occurring in the new leaves of a sawtooth oak at our Nashville office. The cankerworms are tiny

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and slender (5/16 inch long). They can often be seen dangling on a strand of silk. I even noticed a few of the male catkins from the sawtooth oak caught up in the silk and appearing to be floating in mid-air.

Bagworms will be emerging in May so plan now to have infested plants treated from mid-May to early June to prevent damage. This is particularly important on evergreens which can be damaged irreparably by later instar bagworm feeding in July and early August. It is all about aesthetics with ornamental plants so control pests early before they have a chance to ruin the appearance or even severely damage or kill plants.

## Black Shank Applications per the New Ridomil Label

By Steve Bost

Ridomil Gold EC has been replaced with a water based formulation, Ridomil Gold SL. The label for the SL formulation is more flexible in that it allows the use of the product after planting even if none was used prior to planting. This new use allowance applies to all labeled crops, but is of particular interest to tobacco growers, who are heavy users of Ridomil for black shank control.

You can wait until after planting to apply it, but don't wait too long – Ridomil needs to be in the roots before infection, for best control. The SL label says: "If black shank is expected early in the season, apply as near as possible to transplanting followed by sequential plantings." You should always expect black shank early in the season if the field is known to be infested.

The SL label is organized differently from the old EC label. All crops are listed in each of two parts. Part 1 is for preplant applications and Part 2 is for postplant applications. In Part 2, no preplant applications are required and postplant use is described.

**IMPLICATIONS:** Ridomil greatly a benefit from soil incorporation....the preplant incorporated method of application was determined to be the most effective when the compound underwent testing during development before its initial registration. The downside is that much material is wasted because the plants' roots never reach it in the row middles following broadcast applications. By waiting until after planting, the spray can be directed to the row, and the plants roots should contact more of the fungicide than possible with broadcast applications. In order for this to occur, however, the material must be incorporated with the cultivator.

## Tobacco Disease Control Update

By Steve Bost

If you would like to view or obtain a copy of the PowerPoint that I used at the tobacco in service training in February, it is available at <http://tobaccoinfo.utk.edu> under "Recent Presentations."

## Grape Mildews Developing Fungicide Resistance

By Darrell Hensley

The fungi causing downy mildew and powdery mildew of grape are developing resistance to strobilurin fungicides according to a recent report in Plant Health Progress. Research reported by A. Baudoin, et al, is entitled "QoI (quinone outside inhibitors) resistance of *Plasmopara viticola* and *Erysiphe necator* in the mid-Atlantic United States."

In 2005 and 2006 pathogen collections were made from samples taken in Virginia, Maryland, Pennsylvania, and North Carolina vineyards. In one year, 75 percent of downy mildew isolates sampled were resistant to strobilurin fungicides (this class includes; azoxystrobin, enestrobin, picoxystrobin, pyraclostrobin, kresomix-methyl, trifloxystrobin, dimoxystrobin, metominostrobin, orysastrobin, famoxadone, fluoxastrobin, fenamidone, and pyribencarb) and over 90 percent of powdery mildew collections were also resistant. The resistant pathogen strains were obtained from vineyards where strobilurin fungicides had been used an average of 2 to 3.4 times per year over several years. Where these fungicides were not used, mildews were still strobilurin-sensitive.

These results indicate that resistance of downy and powdery mildews to strobilurin fungicides is widespread in the mid-Atlantic states and suggest that fungicide resistance could be occurring in Tennessee as well. Downy mildew (*Plasmopara viticola*) and powdery mildew (*Erysiphe necator*) commonly occur in Tennessee grapes. Several fungicides are listed for management of these diseases, including strobilurins (also known as QoI compounds).

Mildew management techniques, if [strobilurin] fungicide control failure is occurring, may include the use of other fungicides to alternate with or substitute for strobilurins, being aware that some of the alternative fungicides could develop resistance problems of their own. In addition to the fungicide application critical period between pre-bloom to 3-4 weeks after bloom, these 2 diseases still may require management through the rest of the growing season.

Source: News-Democrat & Leader [edited]

<<http://www.newsdemocratleader.com/articles/2008/03/25/news/farms/fnews02.txt>>

Reference: A Baudoin et al: QoI resistance of *Plasmopara viticola* and *Erysiphe necator* in the mid-Atlantic United States. Plant Health Progress.

Pictures:

Downy mildew on grapevine leaf:

<[http://www.nt.gov.au/dpifm/Primary\\_Industry/Content/Image%20Library/Plant%20disease%20image%20library/images/downy\\_mildew\\_grapevine.jpg](http://www.nt.gov.au/dpifm/Primary_Industry/Content/Image%20Library/Plant%20disease%20image%20library/images/downy_mildew_grapevine.jpg)>

Downy mildew on grapevine fruit:

<<http://www.canr.msu.edu/vanburen/gdfig3.jpg>>

Downy mildew on grapevine flowers:

<<http://www.inra.fr/hyp3/images/6034736.jpg>>

Powdery mildew on grapevine leaf:

<<http://grape.cas.psu.edu/Diseases/powdery%20mildew/powdery%20mildew%20leaf2.jpg>>

Powdery mildew on grapevine fruit:

<[http://www.thewinepages.com/grape\\_diseases/powdery-mildew-grape.jpg](http://www.thewinepages.com/grape_diseases/powdery-mildew-grape.jpg)>

## Wheat is Growing at a Very Fast Pace

By Russ Patrick



Thus far nothing appears to be damaged by insect pests. We have just baited our pheromone traps with Black cutworm and True armyworm to attract the adult moths. It may still be a little early for true armyworms but I thought it best to go ahead and bait all traps in Jackson and Milan. We will be posting catches from these traps each week in What's Happening Newsletter.



Black cutworm moth



True armyworm



Pheromone Trap  
Texas Cone Trap  
used to catch  
Black cutworms  
and True Army-  
worms.



True armyworm larva

I hope this gives us a little space to know if and when the insects become active. By trapping for cutworms which can be a problem this year because we appear to be headed for a cool and wet spring. This may be a time we will see more activity in corn and wheat from insect pests. Best to be alert to possible infestations from these insects. I will talk about corn next week and the potential for insect pests. We hope to be able to catch cutworms moths early enough to warn producers of any impending infestations.

## Subterranean Termites Swarming: Time to Call a Professional

By Karen Vail

Our first report of a termite swarm this year occurred in the first week of March and the calls continue. Subterranean termites, the most destructive wood-feeding insects in Tennessee, feed on cellulose that is usually obtained from wood. Termites are very important because they help recycle dead, fallen trees back into the soil. They do not easily distinguish between a dead pine tree and pine lumber; therefore, their food may be in the form of a dead tree or the wood in a house. In the United States, the cost of treating and repairing damage caused by subterranean termites has been estimated to be between 1.2 and five billion dollars a year. Subterranean termite treatment may cost more than \$1000 per residence. Besides the expense, winged termites emerging by the thousands inside one's home can be quite traumatic. The thought of termites feeding undetected in your home, for most folks the largest investment of their life, isn't too settling either.

### **Q: Can I treat the house myself?**

A: Most people are trying to protect the largest investment of their life, so why risk damage to the house and environment by a poorly or inappropriately applied treatment by an inexperienced homeowner? Ridding a home of termites requires special skills and a pest management professional is recommended. Knowledge of building construction and termite biology and behavior, and specialized and expensive application equipment (masonry drills, pumps, large-capacity tanks, soil treatment rods and more) and access to professional termiticides are reasons why a pest management professional is needed. Professionals may use specialized detection tools, such as moisture meters, acoustic emissions detectors, microwave tools, thermal imaging, canine termite detectors (termite sniffing dogs), fiber optics and others. *"Do-it-yourself" termite baits (see bait comments below) sold at retail stores or bought over the internet will seldom eradicate an existing termite problem (Potter 2004b).*

### **Q: How do I choose a pest control company?**

A: One of the most important steps to obtaining control of a termite infestation is procuring the services of a trained and experienced pest control professional. Use the following items as a guide in selecting professional help:

- Ask for referrals from trusted acquaintances who were satisfied with their termite treatment. Call at least three of these pest control companies and ask for price quotes, the chemical to be used and how the company plans to treat your house.
- If a company conducts an inspections, ask for copies of the inspection letter and map. Keep these records.
- Read the contract carefully. Different options are available. Some companies will offer to re-treat if there is a failure, while others may provide an additional damage repair clause. Read both sides of a contract to understand what you are getting.
- An annual renewal fee for inspections is usually offered. It is usually a good idea to contract for this service.
- Study the bids, a description of the work to be done and details of any guarantees and then make your decision.
- Be wary of prices that seem too low. Highly specialized equipment and training is needed to control termites and a low bid may mean low quality.
- In most cases, the materials to be used for termite control are only available to a certified applicator. The certified applicator should possess a certification card and a charter number should be present on a company's truck to indicate the Tennessee Department of Agriculture has licensed the owner.

Do not feel pressured into signing a contract immediately. Termite damage occurs slowly. The amount of damage caused by taking an additional day, week, or month to make an informed decision is insignificant.

More information on termite biology and management can be found in the sources for this article:

Potter, M. 2004a. Entfact-639: Termite Baits: A Guide for Homeowners. University of Kentucky Cooperative Extension Service. <http://www.uky.edu/Agriculture/Entomology/entfacts/struct/ef639.htm>

Potter, M. 2004b. It's Termite Season. Kentucky Pest News. University of Kentucky Cooperative Extension Service. March 29, 2004 vol. 1014 [http://www.uky.edu/Agriculture/kpn/pdf/kpn\\_1014.pdf](http://www.uky.edu/Agriculture/kpn/pdf/kpn_1014.pdf)

Potter, M. 2004c. Termites, pp. 217-316. In A. Mallis S. Hedges [ed. dir.], Handbook of Pest Control, 9<sup>th</sup> edition, GIE media, Inc.

Potter, M. 2006. Protect Your Home from Termites. Kentucky Pest News. University of Kentucky Cooperative Extension Service. April 3, 2006 vol 1086: <http://www.uky.edu/Agriculture/kpn/kpnhome.htm>

Vail, K., H. Williams and J. Yanes. 2001. Subterranean Termite Control. The University of Tennessee Agricultural Extension Service. <http://www.utextension.utk.edu/publications/pbfiles/PB1344.pdf>

Vail, K., E.E. Burgess, and C. Pless. 2006. PB 1703 Wood-Destroying Organisms Pesticide Applicator Training Manual Licensing Category: WDO. The University of Tennessee Agricultural Extension Service. <http://eppserver.ag.utk.edu/psep/secondlevel/thirdlevel/WDO/WDOindex.htm>

## Updates to Imported Fire Ants eXtension Web Site

### Fire Ants Decision Tool: Customized Management Plan

By Karen Vail

This has been a busy week for fire ant questions, so I thought I would remind you that most of your fire ant inquiries can be resolved by using the eXtension imported fire ant web site, <http://www.extension.org/fire+ants>. Information is posted to the site as web pages, videos, publications and links and includes descriptions, impacts, biology and management of fire ants. One of the latest additions is the [Fire Ant Decision Tool: Customized Management Plan](http://www.extension.org/pages/Fire_Ant_Decision_Tool:_Customized_Management_Plan) ([http://www.extension.org/pages/Fire\\_Ant\\_Decision\\_Tool:\\_Customized\\_Management\\_Plan](http://www.extension.org/pages/Fire_Ant_Decision_Tool:_Customized_Management_Plan)) which asks the user a series of questions pertaining to their fire ant problem and under what constraints they will be managed. The program keeps track of the responses and provides a management report that is specific to each user. As the user proceeds through the various screens, many links provide detailed information that will allow them to choose the answer that best fits their situation. I invite you to explore this new tool.

## Imported Fire Ants eXtension Web Site: Ask the Expert

By Karen Vail

Another helpful part of the eXtension fire ant web site is the “ask the experts” query. If you or your client cannot find particular information on the web site, there is a search command on each page. If these responses still don't answer your question, there is another option. Users can “ask the expert”. Once a link is chosen off the fire ant home page, usually two “ask the expert” boxes are found on each internal web page. They may appear as *“Have a specific question? [Try asking one of our Experts](#) Unlike most other resources on the web, we have experts from Universities around the country ready to answer your questions.”*

Currently we have seven agents or specialists that have enrolled to answer questions for Tennessee.

### “Will club soda control fire ants?”

By Karen Vail

Here is an example of what was submitted to the eXtension frequently asked questions.

**Q: “Will club soda control fire ants?”**

**A:** It is interesting how many different fire ant “cures” there are. Many of these, including use of club soda as an ant mound drench, have not been scientifically tested. This home remedy, like many others, has a good premise (environmentally sound and kills the colony with carbon dioxide) but it is highly unlikely that the quantity of carbon dioxide in the club soda would be sufficient to replace the air in a colony that may extend 12 feet in the ground. It might make the colony move since the fire ants do not like being disturbed. The amount of club soda needed to kill any ants may prove to be expensive! Find more information about home remedies at FAQ 1107, “Do any of the home remedies for eliminating imported fire ants work?” (<http://www.extension.org/faq/1107>). The eXtension fire ant resource area ([www.extension.org/fire+ants](http://www.extension.org/fire+ants)) has information about safe and effective methods of fire ant control, including the Fire Ant Control Made Easy Video ([http://www.extension.org/pages/Fire\\_Ant\\_Control\\_Made\\_Easy\\_Video](http://www.extension.org/pages/Fire_Ant_Control_Made_Easy_Video)) and the Managing Imported Fire Ants in Urban Areas Learning Lesson ([http://www.extension.org/pages/Managing\\_Imported\\_Fire\\_Ants\\_in\\_Urban\\_Areas](http://www.extension.org/pages/Managing_Imported_Fire_Ants_in_Urban_Areas)). You may want to try the Customized Fire Ant Management Decision Tool (<http://pubwiki.extension.org/decisiontree/main.html/fireAnts>) which will help you develop your own fire ant management plan. Drafted by Kathy Flanders and Bart Drees.

## Products Registered for Fire Ant Use in Tennessee

By Karen Vail

Every year we attempt to find the products that are registered in Tennessee for fire ant control. This year's results are sorted by product name or active ingredient and are listed on the UT fire ant web site, <http://fireants.utk.edu>, under Updates. Most of the products listed are for use around homes, but we are starting to include some commercial products too. Because there seems to be some confusion on where each product can be used, we have included a list of use sites for each product. For instance, only a few products can be used in pastures. As you will notice, Over N' Out is not listed for pasture. If you come across products that allow use against fire ants and we don't have them listed in the table, please forward this information to me via email at [kvail@utk.edu](mailto:kvail@utk.edu). Another concern when choosing fire ants products is cost. Kathy Flanders at Auburn University has surveyed the Alabama stores and has listed the cost of products per acre, 1000 sq. ft or 10 mounds. Products are sorted into several tables including baits for broadcasting, granulars for broadcasting, and individual mound treatments (<http://www.aces.edu/pubs/docs/A/ANR-0175-A/ANR-0175-A.pdf>).

## PSEP Quick Guide for Online PSEP Courses

By Gene Burgess

A quick guide for the online PSEP courses is being prepared and will be sent by e-mail from my office in the very near future. Hopefully it will be helpful with reference to procedures and downloads, such as:

PA certification & recertification pre-test, post-test & keys

PA initial certification & recertification programs

W186, Extension Personnel Online & On-Site User's Guide for Online PSEP Courses

W188, Extension Personnel Download Guide for Group Instruction Content

EPP Info. No. 318A & 318B

Extension Online Course Enrollment Form

## Plant & Pest Diagnostic Highlights

By Bruce Kauffman

We received 35 samples from March 26 to April 9, 2008 including 24 samples via the UT Diagnostic Web Site.

### FRUIT and VEGETABLES :

Possible drought-initiated gummosis of twigs and patches of outer bark peeling due to stem growth irregularities of peach; botryosphaeria canker of apple stem; suspected chlorine excess from surface-sterilized pots and/or nutrient deficiency and possible pythium root rot of early tomatoes.

### INSECTS, CRUSTACEANS, and MITES :

Aphids on Knockout roses; bagworms on Leyland cypress; euonymus scale on holly.

### Insects in and around the house :

Black widow spider; termite damage to swimming pool liner; carpet beetle; redheaded ash borer; termite reproductives; Indian meal moth larvae; imported fire ant.

### TURF :

Nutrient and/or pH problem in bluegrass/fescue mixture.

### ORNAMENTAL :

Accelerated older leaf loss due to heavy flowering and leaf spot disease of holly; drought dieback and winter injury of boxwood; possible virus of butterfly bush; woodpecker damage and excessive pruning of oak; needle disease of Austrian pine; entomosporium leaf spot of red-tipped photinia; girdling roots of red maple; woodpecker damage to baldcypress; root death and/or basal canker, transplant shock, macrophoma twig blight and seiridium or botryosphaeria canker of Leyland cypress; last year's freeze damage of Japanese maple twigs; poor root development of greenhouse dahlias; leaf spotting and drought-related branch decline of rhododendron; root mortality due to poor site conditions, poor plant material, incorrect planting methods, girdling roots and/or insufficient watering of arborvitae.

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**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>

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

**USDA Soybean Rust Web Site**

<http://www.sbrusa.net>

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

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

**Entomology and Plant Pathology Web Site**

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

**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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