

# **KENTUCKY PEST NEWS**

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## **WATCH FOR:**

LICE on cattle, goats, and swine; LADY BEETLES, CLUSTER FLIES, BOXELDER BUGS and other invaders in homes and buildings

## **ANNOUNCEMENTS**

### **UK JOINS THE PLANT MANAGEMENT NETWORK PARTNERS PROGRAM**

by **Kenny Seebold, John Hartman, Don Hershman,  
and Paul Vincelli**

The University of Kentucky has recently become a partner of the Plant Management Network (PMN). The PMN website ([www.plantmanagementnetwork.org](http://www.plantmanagementnetwork.org)), describes this service as a “collaborative, multidisciplinary, electronic-only resource that provides credible, hands-on applied information to agricultural practitioners, researchers, educators, and other key stakeholders in the plant science community, worldwide. PMN is a not-for-profit endeavor sponsored by a growing list of involved partners”. Under the partnership, all UK faculty, Extension personnel, staff, and students have full access to every resource available on the PMN site. We published a brief description of the PMN in [Kentucky Pest News #1091](#) (5/08/06), and since that time more than 624 visits to the site have been made by UK faculty, staff, and students. Phil Bogdan, communications manager for the PMN, reports that as of 11/30/06, only 15 people have registered with PMN. In 2007, our goal is to raise awareness of the PMN within the College of Agriculture at UK, and to encourage all eligible personnel who have not taken advantage of the free subscription to sign up and take advantage of this excellent resource. Please take a moment to read the following statement, prepared by Phil Bogdan, which explains what PMN has to offer and how you can become a registered user of the system:

In April 2006, the University of Kentucky became a partner of the Plant Management Network (PMN), a publisher of academic resources that cover a range of disciplines in the plant and agricultural sciences.

Under our partnership, all faculty, students, and staff, including county extension agents, may register for a free personal subscription to all of PMN’s resources, which include everything at the following link: <http://www.plantmanagementnetwork.org/subscriptions/benefits/>. Members can access four peer-reviewed online journals (Plant Health Progress, Applied Turfgrass Science, Crop Management, and Forage and Grazinglands), an extensive collection of digital images, a plant science database, and educational and training resources.

The best way to take advantage of your free subscription is to sign up with PMN.

To register, click the following link, or paste it into your browser: <http://www.plantmanagementnetwork.org/subscriptions/activation/default.cfm?ID=106327>

You can also reach this page by going to [www.plantmanagementnetwork.org](http://www.plantmanagementnetwork.org), mousing over the “subscribe” tab on your navigational bar, clicking on “personal subscriptions,” scrolling toward the bottom of the page, and clicking on the “University of Kentucky” link.

Next, enter the required information to activate your own personal account. Doing so will allow you to access PMN from anywhere. It also signs you up for PMN Update (<http://www.plantmanagementnetwork.org/update/current/>), a monthly e-newsletter that highlights their latest applied, peer-reviewed research as well as the latest plant science and agricultural industry news.

Another way to get involved with PMN is through au-

thorship. PMN's peer-reviewed journals and resources focus on applied research. Also, PMN does not incur page charges for publishing. Authorship benefits include...

- Peer-Reviewed Publication
- Permanent Citation
- Rapid Publication Upon Acceptance
- Worldwide Exposure
- No Page Charges
- Free Use of Color
- Direct Email Links to Corresponding Author
- Linkable Literature Citations
- Free PDF File of Completed Article for Use in filling Reprint Requests and performance review packets

If you would like to submit reports or manuscripts, the following links will lead you to submission instructions for PMN's resources...

Journal Submissions: <http://www.plantmanagementnetwork.org/guidelines/call/>  
Variety Trial Submissions: <http://www.plantmanagementnetwork.org/guidelines/trials/>  
Plant Disease Management Report (PDMN) Submissions (Formerly B&C and F&N Tests): <http://www.apsnet.org/online/pdmr/guidelines/>

Students, faculty, and extension staff at PMN's 29 other partner universities have taken advantage of PMN's partnership benefits, and I hope the University of Kentucky takes full advantage of them as well. If you have any questions, please contact Phil Bogdan, PMN's partner relations contact, at 651-994-3859 or [pbogdan@scisoc.org](mailto:pbogdan@scisoc.org).

Personnel on main campus or the Princeton Research and Education Center can access PMN through the Agricultural Information Center (AIC) page ([www.uky.edu/Libraries/aic](http://www.uky.edu/Libraries/aic)). Once inside the AIC site, choose the PMN link from the drop-down menu under "Selected Databases", located in the upper left-hand corner of the page. This will open the PMN page without requiring a user name or password. Personnel, such as county agents, located off campus can access PMN by registering on the PMN site and obtaining a password, or by using EZProxy. The EZProxy system provides off-campus access to resources restricted to UK faculty, staff, and students. Library resources provided by the AIC are restricted and therefore require proxy access for personnel located off-campus. The use of EZProxy requires a valid UK identification card or library card whose barcode has been activated at a UK Libraries circulation desk. For those who do not have a library card, call or email Patty Hornback (859) 257-2758 ([phornbac@uky.edu](mailto:phornbac@uky.edu)) or Valerie Perry (859) 257-2758 ([vperry@uky.edu](mailto:vperry@uky.edu)). Either person will assist with obtaining a library card and any other questions regarding access to PMN.

Funding for access to PMN was provided by the UK Integrated Pest Management program. We hope that everyone will take advantage of PMN. Please take the time to explore the PMN site to discover the variety of information and other resources that are available.

## CORN

### GIVING UP CORN ROTATIONS?

by Ric Bessin

Over the past several years, there has been a major shift by many growers toward more continuous corn. Excellent demand and good prices for corn have encouraged this shift. However, continuous corn does raise some issues with management of insect pests, particularly corn rootworm. Traditionally, this insect has been managed very effectively in Kentucky with crop rotation, and that is still a very viable option. There have been reports at some meetings of rootworm problems in some river bottom fields in the Green River area this past year.

When the push to more continuous corn acreage began a few years ago, the risk of rootworm problems was relatively low. Keeping a field in corn two or three years only increases the risk of rootworm damage slightly. But as fields are kept in continuous corn for longer periods of time the risk increases. Growers may begin to notice lodged corn in mid to late June as an early sign of economic damage. However, once the symptoms of rootworm damage appear, there are no rescue treatments. Treatments for corn rootworm must be used before signs of damage appear.

Typically crop rotation is the most effective means of controlling these pests. Fortunately, we DO NOT have the soybean variant in Kentucky. This variant causes problems to first year corn in central and northern Indiana and Illinois. In Kentucky, eggs laid by Northern and Western corn rootworm beetles in last summer's corn fields will hatch in late spring and the larvae will feed on the root systems of corn plants. Generally, keeping a field in corn a second year only increases the potential for rootworms slightly. But each additional year a given field is kept in continuous corn, the risk of economic losses to corn rootworms increases. There is one exception in our state, the Southern corn rootworm, aka the spotted cucumber beetle. This pest overwinters as an adult and lays its eggs in the spring, and on rare occasions, has caused economic damage to corn. This rootworm species can be a problem in first year corn. But this insect has a wide host range, has been here a long time, and rarely causes noticeable damage to corn.

There are some other soil insect problems that are often

confused with corn rootworms. Wireworm problems are increasing and some mistake this for rootworms. The classic sign of rootworm damage is lodged corn ("goose-necked") in the late whorl or early tassel stage. Wireworms cause early stand loss and deadhearts of developing seedlings. Grape colaspis is another uncommon soil pest that has been confused with rootworms. This insect is a root feeder and can kill large numbers of plants in a field. But it is most often a problem after some specific rotations such as red clover. There are photos of corn rootworm adults, larvae, root damage, and lodged corn on the corn insect picture sheet on the KY IPM website (<http://www.uky.edu/Ag/IPM/picturesheets/fieldcorninsects2.pdf>).

So how does a grower decide if he/she needs to control corn rootworms in their corn this year? Monitoring for the adult beetles in mid summer is the best strategy. You are advised to use a rootworm seed treatment (Poncho 1250, Prescribe, or Cruiser RW), a soil insecticide at planting (Force, Aztec, Fortress, Lorsban, Capture, Regent, etc. [see ENT-16 for rates and a complete list of treatments]), or plant Bt-rootworm corn (YieldGard RW or Herculex RW) if you are growing continuous corn *and* you noticed an average at least of one beetle per plant last summer. You should monitor weekly for the adult beetles beginning in late June through early August. In fields where something other than corn was grown last year, no control is needed for rootworms. This is the most economical strategy. Many growers have not monitored for the beetles in the summer, making this decision much more difficult. They can treat preventively, but it is unlikely that fields in corn 2 or 3 years would have need for a rootworm treatment. However, you can't rule it out either.

To monitor for the rootworm beetles, growers need to EXAMINE 20 PLANTS PER LOCATION and record insects found per plant. Select locations randomly so that they will be representative of the entire field. The number of locations depends on the field size, but a minimum of 2 is required and a 100 acre field would need 9. Don't survey along field margins unless specifically directed to do so. Don't limit surveys to one side or end of a field. The economic threshold for rootworm control the following year would be an average of one beetle or more per plant. For a complete description of rootworm monitoring guidelines and procedures, see IPM-2, "Kentucky Integrated Crop Management Manual for Corn," which is available on line on the KY IPM website.

We have excellent tools to manage rootworms, with several new technologies in the research pipeline. The difficulty for growers is deciding when to use controls for corn rootworms and when not to. Generally, rootworm treatments will cost between \$15 and \$20 per acre, they

are not cheap. Some of the tools require specialized equipment on planters (soil applied at-planting insecticides), other treatments do not require specialized equipment (seed treatments and Bt rootworm corn). Seed treatments and Bt rootworm corn need to be ordered in the winter, so some growers may need to make a decision on rootworm control in November/December.

Generally, widespread preventive treatments for corn rootworms in continuous corn are not recommended unless there is evidence of a need on a field by field basis. If a field shows signs of high rootworm risk for the coming season, consider using rotation to manage the problem. Growers wanting to grow continuous corn may benefit by keeping fields in corn for only 2 or 3 years then rotating to a non-corn crop to manage rootworms.

## FRUIT CROPS

### FRUIT SPRAY GUIDES - DISEASE MANAGEMENT CHANGES FOR 2007 by John Hartman

The 2007 Midwest Commercial Tree Fruit Spray Guide (ID-92) and the Midwest Commercial Small Fruit and Grape Spray Guide 2007 (ID-94) have been prepared by plant pathology, entomology and horticulture specialists from several Midwestern states. The guides are available for Kentucky growers and can be obtained from County Extension Offices statewide. These guides are updated annually so that growers can have the latest information on new pesticides added to the guide as well as new use patterns (or sometimes discontinuation) for the older pesticides. For disease management, the following changes have been made for 2007.

**Apple scab fungicide resistance alert.** It is apparent that strains of the apple scab fungus in the Midwest are now resistant to DMI fungicides (Nova, Procure, and Rubigan). This means that extended protectant programs are in jeopardy and that growers may need to go back to weekly applications of protectant fungicides. Substituting a strobilurin (Flint, Sovran) for a DMI fungicide to extend protection is not effective. If growers are having trouble managing scab disease in the orchard, it may be due to fungicide resistance. Testing orchard scab fungi for resistance to DMI fungicides can be done by Cornell University plant pathologists, but it is fairly costly.

**Apple spray guide changes.** At the green tip stage, scab resistance to Syllit fungicide is noted, Thiram is removed from the spray schedule for disease control, and thiofanate-methyl (Topsin-M) is removed from the early spray schedule. At tight cluster, Scala, a new fungicide, is added to the list of fungicides for protection against scab.

At first and second cover, scab resistance to thiophanate-methyl (Topsin – M) is noted.

**What is scala fungicide?** Scala is a reduced-risk fungicide used for apple scab control early in the season. It is effective at low temperatures that often occur before bloom. The active ingredient for Scala is pyrimethanil and there is a 72-day PHI for this fungicide.

**Pear spray guide changes.** For fire blight management during pear bloom, Mycoshield and Flameout (oxytetracycline) have been added. Neither formulation of this antibiotic is cleared for use on apples. Flameout is a new brand of oxytetracycline; Mycoshield has been in use for agricultural purposes for some years.

**Cherry spray guide changes.** At cherry petal fall and cherry shuck-fall, Gem, a new fungicide, is added to the spray guide for cherry leaf spot and powdery mildew management. Flint is removed from the spray guide here. At cherry first cover spray, fungicide resistance management suggestions are made and a description of an integrated copper/sterol inhibitor/strobilurin program for cherry leaf spot management is introduced in the spray guide.

**What is Gem fungicide?** Gem is used for management of cherry leaf spot, powdery mildew, and peach scab. The active ingredient is trifloxystrobin – the same as Flint fungicide, but Gem is a different formulation. Like other strobilurin fungicides, Gem penetrates plant tissue through trans-laminar activity.

**Peach spray guide changes.** At the peach shuck split and remaining covers stage, Gem fungicide is added for management of scab and powdery mildew. Also at peach shuck split, Flameout antibiotic is added and wettable sulfur is removed from the list for bacterial spot management.

**Grape fungicide resistance alert.** This alert, repeated several times in the grape spray guide this year indicates that for powdery mildew control, DMI fungicides (Nova, Rubigan, Elite, Procure) and strobilurin fungicides (Abound, Sovran and Flint) might not be effective in some vineyards due to resistance. Also, some strains of grape downy mildew are resistant to the strobilurin fungicides. Fungicide resistance risk can be reduced by mixing the vulnerable fungicide with a fungicide having a different mode of action, often a broad-spectrum protectant fungicide.

**Grape spray guide changes.** For the post-bloom shatter stage and from first cover to veraison stages, the fungicide Carbamate 76WP has been replaced by Ferbam

76WP for management of black rot and downy mildew. This is the same fungicide, but with a different name. Grape cultivars such as Corot Noir, Geneva Red - 7, Noiret, and Valvin Muscat have been added to the grape cultivar disease susceptibility table.

**Blueberry spray guide changes.** At the dormant stage, for phomopsis cane and twig blight management, the fungicide Sulforix has been added. At the green tip, pink bud, and bloom stages, the fungicide Indar has been added for mummyberry, Botrytis, stem canker and blight, and anthracnose management.

**Raspberry and blackberry spray guide changes.** The fungicide Sulforix has been added for management of anthracnose, spur blight, and cane blight during the late dormant period. At bloom and post-bloom until harvest the fungicide Pristine has been added for Botrytis fruit rot (only) management.

**Strawberry spray guide changes.** There were no changes from the 2006 guide to the 2007 guide.

## LAWN & TURF

### EPA PLANS TO CANCEL SELECTED TURF USES OF TRIADIMEFON BASED ON VOLUNTARY PROPOSAL BY BAYER CROP SCIENCE by Paul Vincelli

The fungicide *triadimefon* (the active ingredient in Bayleton and Proturf Fungicide VII) has a variety of uses for turf disease control. It is among the more effective fungicides against dollar spot, large patch (of zoysia), powdery mildew, red thread; rusts, summer patch; and it can play a role in control of anthracnose, brown patch, gray leaf spot, pink snow mold, and take all.

The re-registration process is required of all older pesticides. It is essentially a thorough scientific review to assure that older pesticides meet today's more rigorous safety standards. Triadimefon is nearing the end of the re-registration process. At this time, the US Environmental Protection Agency (EPA) is proposing the following changes to the label. These were outlined in the *Re-registration Eligibility Decision* published by EPA in September of last year.

1. Cancelling all uses of triadimefon on residential turfgrasses, based on the voluntary request by manufacturers of triadimefon products (Bayer Crop Science) to terminate its use on such sites.
2. Permitting only applications to golf courses and sod farms.

3. Limiting turf application rates of a maximum single application rate of 2.7 lbs ai/ A, and a maximum yearly rate of 5.4 lbs ai/ A (reduced from no limit on the number of applications).
4. Limiting golf course applications to turf that is less than 2.5 inches in height (this will reduce application to golf course roughs, which are usually 3 or more inches in height).

These proposed changes are the manufacturer's way of reducing environmental hazards identified during the re-registration process. While I have not been involved in the re-registration process, I have examined the *Re-registration Eligibility Decision* and I am familiar with the re-registration process and the associated scientific analyses. Based on this, I think it is likely that these changes are well-founded and reasonable.

EPA has solicited public comments on the proposed changes,. Comments must be received on or before May 7, 2007. Comments can be submitted as follows. Make sure to include the docket identification number EPA-HQ-OPP-2005-0258 in your correspondence.

1. Online at <http://www.regulations.gov>.
2. By postal mail to Office of Pesticide Programs (OPP) Regulatory Public Docket (7502P), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001.
3. By delivery: OPP Regulatory Public Docket (7502P), Environmental Protection Agency, Rm. S-4400, One Potomac Yard (South Building), 2777 S. Crystal Drive, Arlington, VA. Deliveries are only accepted during the Docket's normal hours of operation (8:30 a.m. to 4 p.m., Monday through Friday, excluding legal holidays). Special arrangements should be made for deliveries of boxed information. The Docket telephone number is (703) 305-5805.

  
Lee Townsend, Extension Entomologist

NOTE: Trade names are used to simplify the information presented in this newsletter. No endorsement by the Cooperative Extension Service is intended, nor is criticism implied of similar products that are not named.

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