

# KENTUCKY PEST NEWS

ENTOMOLOGY • PLANT PATHOLOGY • WEED SCIENCE

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**Number 1162**

**May 19, 2008**

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### WATCH FOR:

CORN ROOTWORM egg hatch soon; PLUM CURCULIO egg-laying begins; WOOD COCKROACH incursion into homes; Signs of FOUR-LINED PLANT BUG feeding; EUROPEAN PINE SAWFLIES feeding on old needles. DOGWOOD BORER and BRONZE BIRCH BORER flight; PERIODICAL CICADA emergence will continue thru May; ARMYWORM feeding will continue into early June in some areas.

## TOBACCO

### DISEASE UPDATE

by **Kenny Seebold**

As of May 19, 2008, blue mold has yet to spread outside the area in north-central Florida where the disease was found back in March. Conditions over the past week were favorable for development of blue mold; however, the North American Plant Disease Forecast Center did not predict movement of inoculum from the two known sources (Cuba and FL) into our production areas ([www.ces.ncsu.edu/depts/pp/bluemold](http://www.ces.ncsu.edu/depts/pp/bluemold)) during this time frame.

Last week saw a major spike in the number of reports of Pythium root rot and collar rot, caused by *Sclerotinia sclerotiorum*. We also found a number of cases of target spot. Weather conditions during the week of May 12 were favorable for development of collar rot and target spot, so we are likely to see new cases of these problems emerging in the coming days. Proper management of tobacco in the float bed is a critical step in managing collar rot and target spot. Steps must be taken to manage humidity – adequate airflow and ventilation should help reduce leaf wetness. Fertility should be maintained

between 75 and 125 ppm (N), and plants should be clipped regularly. When clipping plants, avoid buildup and deposition of debris on transplant trays since *S. sclerotiorum* can utilize decaying leaf matter as a food source to become established in float beds. Avoid clipping plants when foliage is wet, as this can promote spread of diseases in the float system. In the case of collar rot, further spread of disease can be reduced by removing symptomatic plants (and their neighbors) before clipping. This may not be practical if a large portion of plants are affected in a bed. Encourage producers to apply Dithane DF or Manzate Pro-Stick routinely up to the time of transplanting to protect against target spot and blue mold, should it arrive. As we head into warmer weather, be on the lookout for bacterial soft rot (black leg). Adequate ventilation, proper clipping, and close management of fertility (don't exceed 125 ppm N) are keys to avoiding problems with black leg, and applications of agricultural streptomycin at 100 to 200 ppm (1 to 2 tsp per gallon of spray mix) can provide additional protection. For more information on managing diseases of tobacco transplants, refer to ID-160 ("2008 KY Tobacco Production Guide") or KY Pest News No. 1158 (April 21, 2008).

For up-to-date reports on the status of blue mold and other tobacco disease information, check the KY Blue Mold Warning System online at [www.uky.edu/Agriculture/kpn/kyblue/kyblue.htm](http://www.uky.edu/Agriculture/kpn/kyblue/kyblue.htm).

## VEGETABLES

### MANAGING BACTERIAL DISEASES OF TOMATO AND PEPPER

by **Kenny Seebold**

Unusually wet weather has been the norm this spring, and we're beginning to see a number of disease issues

cropping up on our vegetable crops around the state. Recently, we diagnosed a case of bacterial leaf spot on pepper transplants (KPN No. 1160, May 5, 2008). At the moment, the stage appears to be set for widespread problems with bacterial diseases on both peppers and tomatoes. Bacterial spot, which is caused by *Xanthomonas campestris* pv. *vesicatoria*, will affect peppers and tomatoes and tends to be the most common bacterial disease of these crops in Kentucky. We also tend to see quite a bit of bacterial canker, caused by *Clavibacter michiganensis* subsp. *michiganensis*, on tomato in rainy years.

Control of bacterial diseases of tomato and pepper can be difficult if nothing has been done before symptoms are observed. Prevention is the best defense! We recommend that growers use certified, disease-free seed or transplants. Managing bacterial diseases in the greenhouse goes a long way in keeping these problems out of the field. All implements and materials such as stakes should be sanitized. In both the greenhouse and field, irrigate early in the morning to minimize the length of time that foliage is wet. Avoid working tomatoes and peppers when foliage is wet, as bacterial diseases can easily be spread by handling or application of pesticides. Tomatoes and peppers should be rotated 2-3 years away to non-Solanaceous crops. Applications of fixed copper plus maneb or mancozeb (depending upon the crop) are effective against bacterial spot when used as part of a preventive disease management program; however, these materials have little effect against bacterial canker of tomato. Growers should be aware that 2008 could be a big year for bacterial diseases on peppers and tomatoes if rainy conditions continue. Refer to ID-36, the "Vegetable Production Guide for Commercial Growers" for more information.

## SHADE TREES & ORNAMENTALS

### COMPLETING THE PLANT DISEASE TRIANGLE - DISEASE-FAVORABLE ENVIRONMENT

by John Hartman

Last week, there were days with persistent rain, mist, fog, and humid, overcast weather in many parts of Kentucky. Wet weather increases disease pressure for most foliar fungal and bacterial diseases of plants in the garden and landscape. Many fungal pathogens require free moisture on the host plant surface for germination of their spores. The longer it is that leaves remain continuously wet, the better chance it is that fungal spores on the host will succeed in infecting the host plant. At average temperatures of 60-65 F, the apple scab fungus needs 9 consecutive hours of wet leaves for successful infection, the grape black rot fungus needs 8-9 hours, the rose black

spot fungus needs 7 hours, shade tree anthracnose fungi need 6-12 hours, and the cedar-apple rust fungus needs only 3-4 hours. Following infection promoted by wet weather, disease symptoms typically appear on the plant a week or two later.

The two other components of the plant disease triangle, the susceptible host and the virulent pathogen are present, in most regions of Kentucky. For example, diseases such as apple scab, oak anthracnose, cedar-apple rust, rose black spot, and ash anthracnose are already present on susceptible host plants in many landscapes. These infections occurred during wet periods last month. Depending on where susceptible plants are located, recent Kentucky disease-favorable wetness periods have lasted anywhere from 9 hours in one day to 45 consecutive hours over two or three days. Thus, for the rest of this spring and even into summer, expect these infections to produce symptoms and more spores to continue the cycle of disease every time a prolonged wet period occurs.

### NURSERY GROWERS CAN LEARN ONLINE ABOUT PHYTOPHTHORA

by John Hartman

Phytophthora, a fungus-like organism, is a persistent threat to nursery crop production in Kentucky. Learning more about this plant pathogen and the diseases it causes would benefit anyone involved in the nursery trade. In addition, nursery growers are aware of the need to be alert for new diseases such as "sudden oak death" (also known as ramorum shoot and leaf blight on nursery stock) caused by *Phytophthora ramorum*. Growers who examine their plants carefully are, in effect, "first detectors" of new and exotic diseases in the nursery industry. Kentucky nursery producers now can participate in a free online Phytophthora training program for nursery growers

Oregon State University offers online training for nursery growers on diseases caused by *Phytophthora* spp. with the goal of helping to minimize these diseases in the nursery setting. The training is free and consists of three 1 to 1.5 hour modules. There is an optional online exam that does have a fee of \$100. If you pass the test, participants will receive a Certificate of Mastery on Phytophthora from Oregon State University Extended Campus. For more information on this training, please visit online: OSU Phytophthora Online Course.

## HOUSEHOLD PESTS

### NORTHERN FOWL MITES

by Lee Townsend and Mike Potter

Northern fowl mites (about 1/30 inch long) are common external parasite on several species of birds including sparrows and pigeons, they also infest chickens. These mites can become household invaders when birds leave or abandon nests built in cavities or sheltered spots in buildings. Hundreds of mites can occur in these nests and they present a temporary but significant problem when they enter structures thru cracks and crevices and wander in search of an avian host. Bird mites will bite humans



but cannot survive on human blood; however, they may live as long as three weeks without an avian blood meal. Northern fowl mites do not carry diseases but allergic reactions to bites can cause red bumps on the skin that itch intensely.

Remove nests and treat outside areas near the nests with an insecticide, pay particular attention to possible entry sites. Long term management should focus on preventing access to these areas by birds. Mites seen wandering indoors can be wiped up off surfaces with cloth or paper towels with soapy water or rubbing alcohol.



(Pictures courtesy of P. Konopka and R. Tackett)



## DIAGNOSTIC LAB-HIGHLIGHTS

by Julie Beale and Paul Bachi

During the past week, the PDDL received samples of *Sclerotinia* collar rot, target spot, *Pythium* root rot, damping off, wet feet problems, and high soluble salts on tobacco seedlings.

On fruit and vegetable samples, we diagnosed leaf curl on peach; anthracnose on strawberry; fire blight on apple; wirestem (*Rhizoctonia*) on cabbage; *Sclerotinia* fruit rot on cucumber; drop (*Sclerotinia*) and *Botrytis* canker on lettuce.

On ornamentals, we have seen *Heterosporium* leaf spot on iris; spot anthracnose on dogwood; anthracnose on euonymus and maple; black spot on rose; *Phytophthora* root rot on cherry laurel; *Botryosphaeria* canker on Leyland cypress; fire blight on flowering pear; and *Pythium* root dysfunction on bentgrass.

## INSECT TRAP COUNTS

May 916, 2008

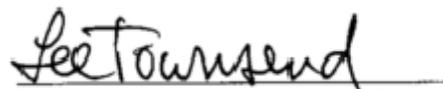
### ► Princeton, KY

Black cutworm .....	13
True armyworm.....	46
Corn earworm.....	0
European corn borer .....	0
Southwestern corn borer .....	0
Fall armyworm.....	0

### ► Lexington, KY

Black cutworm .....	17
True armyworm.....	389
Corn earworm.....	0
European corn borer .....	0
Southwestern corn borer .....	0
Fall armyworm.....	0

Graphs of insect trap counts are available on the IPM web site at -<http://www.uky.edu/Ag/IPM/ipm.htm>. View trap counts for Fulton County, Kentucky at - <http://ces.ca.uky.edu/fulton/anr/>

  
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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