

KENTUCKY PEST NEWS

On line at: <http://www.uky.edu/Agriculture/kpn/kpnhome.htm>

Number 1057

May 23, 2005

TOBACCO

- Blue mold status report and disease update

SOYBEAN

- Soybean rust surveillance update

WHEAT

- Wheat Disease Update

VEGETABLES

- Product updates and label changes for 2005

ALFALFA

- Potato leafhopper

FLOWERS & ORNAMENTALS

- Early rose pests

SHADE TREES & ORNAMENTALS

- Juniper tip blight appearing now
- Forest tent caterpillar active in northern KY

PESTICIDE NEWS & VIEWS

- New information on health concerns to applicators of selected disease control chemicals

DIAGNOSTIC LAB-HIGHLIGHTS

INSECT TRAP COUNTS

WATCH FOR: APHIDS and ROSESLUG SAWFLIES on roses; CORN ROOTWORM egg hatch begins; STRIPED CUCUMBER BEETLES will begin feeding on cucurbits; BAGWORM eggs starting to hatch.

TOBACCO

BLUE MOLD STATUS REPORT AND DISEASE UPDATE

by **Kenny Seebold**

Blue mold had not been reported in the United States as of May 20 – good news for our tobacco producers! As always, we will continue to monitor data from the North American Plant Disease Forecasting Center and provide alerts as necessary.

Growers are actively setting tobacco around the Commonwealth. We also have quite a few transplants still in the greenhouse, and are seeing serious outbreaks of Pythium root rot, Sclerotinia collar rot, and target spot. Growers should continue to follow good management practices in the float system, which would include fertility management, fungicides (where applicable), and good air control in the transplant house to make conditions less favorable to disease development.

SOYBEAN

SOYBEAN RUST SURVEILLANCE UPDATE

by **Don Hershman**

If you look at the public USDA soybean rust website (www.sbrusa.net) you will see very quickly that there is a massive amount of activity monitoring soybean fields, and soybean and other hosts of the soybean rust fungus in sentinel plots, for soybean rust in the U.S. Up to this point, most of the activity has, quite naturally, been in the south. However, scouting has begun in several northern states as well.

At present, the only soybean rust found has been in four Florida counties on Kudzu and one county (Seminole) in the southwest corner of Georgia on volunteer soybean and nearby kudzu. At present there is no soybean rust on soybean in Florida despite that fact that many of their soybean sentinel plots are now flowering. For now, soybean rust is at a standstill, although that could change at any time, and quickly.

There has been a massive search for soybean rust along the Gulf Coast of Louisiana, Mississippi and Alabama, but none has been found. This is very good since the so called "rust (Puccinia) pathway" into the Midwest has its origin in the southern Mid-south. As the soybean rust models are showing us now, and based on our experience with blue mold, we know that pathogen spores blowing in with weather patterns originating in the southeast is also a common pathway into KY. Nonetheless, it is my opinion that the potential for soybean rust is reduced until (if) it is found in the Delta.

I encourage you to continue to check for soybean rust updates on the USDA public website several times a week. We are entering a very critical period for rust surveillance now that soybean fields are up and growing state-wide.

WHEAT

WHEAT DISEASE UPDATE by Don Hershman

I toured southern Kentucky wheat fields last week and saw minimal signs of disease development in most fields. It is still too early to say that we are out of the woods as far as head scab goes, but I did not see any evidence of the disease during the trip. If it is going to show up, the week of May 24th will tell the story. I am optimistic, but I have been wrong before in predicting head scab outbreaks.

Also, I saw minimal evidence of powdery mildew, leaf and glume blotch, barley yellow dwarf, and leaf rust. "Hot spots" of stripe rust were perhaps the most common disease situation, but I cannot say it was a serious situation in any field I looked at.

Of course, good pest management practices and proper use of fungicides by the farmers in the southern tier counties are at least partially responsible for the low levels of disease in the fields I observed. I am sure the dry weather patterns and moderate temperatures have also played a major role.

Much can still happen to the Kentucky wheat crop, especially in the late planted wheat. For example, I am beginning to see considerable leaf rust develop in my unsprayed plots at Princeton. However, the wheat I saw during my tour late last week looked very good to excellent, with minimal lodging, lower than normal disease levels, and better than average yield potential.

VEGETABLES

PRODUCT UPDATES AND LABEL CHANGES FOR 2005 by Kenny Seebold

Growers of commercial vegetables in Kentucky have a good portfolio of products for disease management in 2005. A few new products will be available for this season, and some previously registered products have made changes to their existing labels. The following is a summary of these new products and label changes, by manufacturer. As with all pesticides, be sure to refer to the product label for rates and use directions. Several of the new fungicides have highly specific modes of action and are thus more at risk for the development of resistance by certain plant pathogens. Resistance management guidelines are published by the manufacturers of these products and should be adhered to strictly.

BASF

Acrobat 50W (dimethomorph) is now labeled for suppression of downy mildew of leafy greens.

Endura is now available to growers of head and stem brassicas (broccoli, Brussels sprouts, cabbage, etc.) and also leafy brassica greens. Endura is labeled for suppression of a number of diseases of these crops, including Alternaria blight (black spot), grey mold, Sclerotinia blight, powdery mildew, and Rhizoctonia bottom rot.

BAYER CROPSCIENCE

Previcur Flex (propamocarb) was recently labeled for control of Pythium on greenhouse tomatoes.

Reason 500SC (fenamidone) is approved for use on potatoes, tomatoes, lettuce, cucurbits, and onions. Target diseases are downy mildew, late blight, and early blight.

Scala SC (pyrimethanil) can be used on bulb vegetables (onion, garlic, shallots, etc.), potato, sweet potato, and tomato to control diseases such as Botrytis leaf blight and neck rot, purple blotch, and early blight.

DuPONT

Tanos (famoxadone + cymoxanil) has two new 2(ee) recommendations, which authorize specific deviations from the Section 3 label, for Kentucky. One is for suppression of bacterial spot, bacterial soft rot, and anthracnose on pepper. The second is for suppression of Phytophthora blight on cucurbits, brown spot of potato, and bacterial canker of tomato.

SYNGENTA CROP PROTECTION

Quadris Opti, a pre-mix of axozystrobin and chlorothalonil (0.5 + 5 lb active ingredient per gallon), is now registered for use on beans, cucurbits, onion, potato, and tomato for management of a number of diseases.

ALFALFA

POTATO LEAFHOPPER

by Lee Townsend

Potato leafhoppers can have a tremendous impact on the second and third cuttings of alfalfa. These tiny, sap-feeding insects cause both mechanical and chemical damage. They couple a pulverizing feeding motion with injection of saliva that blocks nutrient flow in leaves. The visible symptom, hopperburn, is a characteristic wedge-shaped yellowing at the leaf tip.

Large numbers of leafhoppers can cause stunted plants with reduced forage yield and quality.

The potential for leafhopper damage is greatest in spring-seeded stands. Potato leafhoppers can move in early and become established at high levels before the first cutting is taken. They arrive in established fields about 10 to 14 days after the first cutting. Detection and accurate assessment of leafhopper numbers requires a sweep net. See ENT-17 Insecticide Recommendations for Alfalfa, Clover, and Pastures for treatment guidelines and insecticide options.

SHADE TREES & ORNAMENTALS

JUNIPER TIP BLIGHT APPEARING NOW

by John Hartman

Twig and branch tip dieback is a common sight in many juniper plantings in Kentucky this spring. While other factors can cause these general symptoms, two fungal diseases are frequently responsible for the dieback. These fungi (*Phomopsis juniperovora* and *Kabatina juniperi*) attack several species of

Juniperus, including red cedar, common juniper and creeping juniper. Arborvitae is also susceptible. In the spring, Kabatina twig blight is most noticeable.

Kabatina Twig Blight. Brown shoots scattered within the healthy green foliage are being seen now. The disease is especially noticeable in beds of creeping juniper. These shoots, green all winter, have only recently turned brown. In early spring, as junipers begin to green up, infected twigs from the previous season's growth begin to fade to a pale green and then turn brown in contrast to healthy green tissues nearby. Grayish lesions with numerous gray-black fruiting bodies appear at the bases of blighted shoots. Kabatina twig blight infections begin through a wound caused by insects or mechanical injury and are thought to begin the previous fall.

Disease Management: 1) Prune out and destroy infected twig tips. Pruning should be done when the foliage is dry in order to minimize fungal spread. 2) Use an approved insecticide to control insect pests. It is possible that insects, such as the juniper midge, create the wounds necessary for Kabatina infections. 3) Avoid planting highly susceptible cultivars. Instead, select varieties that are known to be tolerant to *Kabatina*.

Phomopsis Twig Blight. In late spring and in summer, as new shoots are developing, they can become infected with this pathogen during periods of moist weather. This disease begins as an infection of newly developing needles which then spreads to and kills stem tissues. As with Kabatina tip blight, a tan lesion with fungal fruiting bodies (pycnidia) develop after infection.

Disease Management: 1) Fungicides can be used in spring and summer to prevent infections of new growth. Applications of fungicides containing thiophanate-methyl, azoxystrobin, propiconazole, mancozeb, or fixed copper can protect twigs from infection. 2) Prune out and destroy infected twig tips when foliage is dry. 3) Avoid overhead irrigation, especially late in the evening.

Because these two diseases are so similar in appearance, the time of symptom development can be helpful in distinguishing between the two. Kabatina twig blight symptoms generally develop early in the spring before new growth begins. Phomopsis twig blight symptoms, on the other hand, are more likely to develop any time during the growing season. If twig blight symptoms are evident now on junipers that appeared healthy in the fall, *Kabatina* is likely responsible.

Most junipers are not immune to tip blight diseases.

Kabatina tolerant juniper (that are not known to be susceptible to Phomopsis) cultivars across several species include: Aurea Gold Coast, Blue Mountain, Burkii, Cologreen, Emerald Sentinel, Expansa, Henryii, Hetzii, Hetzii glauca, Hibernica, Hornbrookii, Keteleeri, Manhattan Blue, Marcellus, Mas, McFarland, Mint Julep, Mountbatten, Nana, Perfecta, Prostrata glauca, Robusta Green, Saybrook Gold, Sargentii viridis, Sargentii glauca, Silver Globe, Sutherland, Variegata.

Phomopsis tolerant juniper (that are not known to be susceptible to Kabatina) cultivars across several species include Arcadia, Ashfordii, Aureo-Globosa, Aureo-spica, Buffalo, Calgary Carpet, Campbellii, Cinerascens, Depressa, Douglassii, Expansa, Fargesii, Fastigiata, Femina, Globosa, Hetzii, Hibernica, Hillii, Iowa, Keteleeri, Knap Hill, Meyeri, Mint Julep, Mountbatten, Oblonga Pendula, Pfizeriana, Pfizeriana aurea, Prostrata aurea, Pumila, Pyramidalis, Repanda, Reptans, Robusta Green, Sargentii, Sargentii glauca, Saxatilis, Saybrook Gold, Shoosmith, Silver King, Skandia, Suecia, Tripartita,

Avoid the cultivars Adpressa, Albospica, Alpina, Argentea, Bar Harbor, Blue Chip, Blue Haven, Blue Horizon, Blue Mat, Blue Pacific, Broadmoor, Columnaris, Emerald Sea, Emerson Creeper, Eximius, Horizontalis, Japonica, Pendula, Platinum, Plumosa Compacta, Prince of Wales, Procumbens, Sky Rocket, Spartan, Torulosa Hollywood, Variegata, Welchii, Wiltonii, and Wichita Blue.

WATCH FOR: APHIDS and ROESLUG SAWFLIES on roses; CORN ROOTWORM egg hatch begins; STRIPED CUCUMBER BEETLES will begin feeding on cucurbits; BAGWORM eggs starting to hatch.

FOREST TENT CATERPILLAR ACTIVE IN NORTHERN KY

by Lee Townsend

About this time last year the forest tent caterpillar (FTC) struck along the Ohio River from Madison, IN to Warsaw, KY. The infestation is active now in parts of Boone Co., KY. The FTC is a "hairy" caterpillar that looks a lot like its close relative the eastern tent caterpillar (ETC). The FTC has a single row of footprint-shaped whitish spots down the center of the back; the ETC has a light stripe along the center of its back. FTC feeds on a wide range of deciduous trees including maples, oaks and many other hardwoods. When abundant, these caterpillars will defoliate host trees and move to shrubs, fruits, and vegetables to finish feeding. Dispersal of FTC can cover houses and mature caterpillars move from trees to find pupation sites. There is one generation each year.

FTC outbreaks last for about 3 seasons and then decline but can linger for 5 to 7 years. Growth of defoliated trees may be reduced significantly (up to 90 percent) but trees rarely die unless other factors are acting as stressors. FTC do not spin the tents associated with ETC. Instead, the group together on silken mats which they lay down on trunks and branches. Development takes 5 to 6 weeks ending with pupation in crevices or wrapped in folded leaves.

Wandering caterpillars are difficult to control, even with direct spray of an insecticide. It may be possible to sweep up masses on patios or decks.

PESTICIDE NEWS & VIEWS

NEW INFORMATION ON HEALTH CONCERNS TO APPLICATORS OF SELECTED DISEASE CONTROL CHEMICALS

by Paul Vincelli

A long-term study involving several federal agencies was begun in 1993 to address questions about the health of the agricultural community. The Agricultural Health Study is looking at lifestyle habits, genetic factors, and agricultural exposures at work and in the environment affect the risk of disease. Since this is a long-term, ongoing study, only early findings are available at this time. However, several of the early findings reported in a series of fact sheets are relevant to plant disease control and are summarized here.

1. Retinal Degeneration May Be Linked to Fungicide Use

Degeneration of the retina, the light-sensitive lining of the inner eyeball, is the most common cause of blindness in older adults. There are some animal studies suggesting that pesticides may play a role in retinal degeneration. Researchers in this study compared 154 pesticide applicators who reported having been diagnosed with retinal degeneration to 17,804 applicators that did not. The applicators who reported retinal degeneration were twice as likely to have used fungicides. Significantly, they found an increasing risk of retinal degeneration with increasing days of fungicide use. The researchers found evidence of this trend for five fungicides: benomyl, captan, chlorothalonil, maneb and metalaxyl. The applicators reporting retinal degeneration were more likely to work in orchards, where fungicide use typically is intensive. They were also more likely to have used application methods that have high applicator exposure, such as hand spray guns, backpack sprayers, mist blowers and foggers.

2. Prostate Cancer Risk Greater in Frequent Methyl Bromide Users

Prostate cancer is the only cancer thus far associated with increased incidence in study participants as compared to the general population. Of 45 pesticides evaluated in the study, only one—methyl bromide—was associated with increased risk of prostate cancer with increasing exposure in pesticide applicators. Those with the highest exposure levels had a 3.5-fold higher risk of prostate cancer.

Significance

Pesticides provide substantial benefits in terms of agricultural production. However, each poses potential risks to human health at some dose. The same can be said of sodium chloride, commonly known as table salt, or any other chemical. Nevertheless, these findings serve as a reminder to be respectful of the potential risks that pesticides pose, and to use pesticides in ways that minimize exposure of workers and applicators.

Although I have always advocated care when working with pesticides, given the results reported here, I urge particular caution for those applicators working with crops that often receive intensive fungicide use in Kentucky, such as golf courses, several fruit and vegetable crops, and tobacco. Applications to high-yield wheat crops could also be a concern, and with the advent of Asian soybean rust, so could applications to soybean.

Methyl bromide is in the final year of the phase-out under the *Montreal Protocol on Substances That Deplete the Ozone Layer* (the Montreal Protocol), and only existing stocks can be used. However, the U.S. has secured critical use exemptions to allow extended production and import for use on a number of crops. Most of these exemptions apply to states other than Kentucky, but those that apply to Kentucky include use on:

1. industry-certified sod by producers who are members of Turfgrass Producers International (interestingly, these uses were considered "critical")
2. golf courses for a number of uses (ditto from above)
3. government-owned nurseries for production of forest seedlings

Applicators of methyl bromide in these circumstances should be sure to protect themselves from exposure to this gas.

More information on the Agricultural Health Study can be found at www.aghealth.org.

DIAGNOSTIC LAB-HIGHLIGHTS

by Julie Beale and Paul Bachi

During the past week, we have diagnosed barley yellow dwarf virus on wheat; bacterial blackleg, target spot, Pythium root rot and Rhizoctonia damping off on tobacco.

On fruit and vegetable samples, we have seen double blossom and winter injury on blackberry; extensive fire blight on apple (and pear), plus frog-eye leaf spot on apple; leaf curl on peach; boron deficiency on cabbage; frost injury and herbicide injury on tomato.

On ornamentals, we have diagnosed Rhizoctonia root rot on African violet; nitrogen and iron deficiency on petunia; Coniothyrium canker on rose; leaf/flower gall (*Exobasidium*) on azalea; brown spot needle blight on pine; symptoms of ozone injury on white pine (older needles); and anthracnose on ash, elm, maple and oak.

INSECT TRAP COUNTS

May 13 - 20

UKREC, Princeton KY

Black Cutworm	0
True Armyworm	1
Corn earworm	2
European corn borer	2
Southwestern corn borer	1

View Princeton trap counts for the entire 2005 season at –
<http://www.uky.edu/Ag/IPMPrinceton/Counts/2005trapsfp.htm>

Fulton County trap counts are available at <http://ces.ca.uky.edu/fulton/anr/Insect%20Counts.htm>

For information on trap counts in southern Illinois visit the Hines Report at –
http://www.ipm.uiuc.edu/pubs/hines_report/comments.html

The Hines Report is posted weekly by Ron Hines, Senior Research Specialist, at the

University of Illinois Dixon Springs Agricultural Center.

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.