

KENTUCKY PEST NEWS

ENTOMOLOGY • PLANT PATHOLOGY • WEED SCIENCE
On line at: www.uky.edu/Agriculture/kpn/kpnhome.htm

Number 1109

September 25, 2006

WATCH FOR ANNOUNCEMENT

- Pest management stakeholder meeting
- End-of-season disease management tips
- Northern leaf blight

SHADE TREES & ORNAMENTALS

- Wild mushrooms – to eat or not to eat?

INSECT PESTS OF HUMANS

- West Nile still active in the state

DIAGNOSTIC LAB-HIGHLIGHTS

INSECT TRAP COUNTS

WATCH FOR

LONE STAR TICK larvae and nymphs still attacking humans and pets during fall outings (Entfact 618)

ANNOUNCEMENT

PEST MANAGEMENT STAKEHOLDER MEETING

by Darrell Hensley

Tennessee has assisted the Southern Region Integrated Pest Management Center (SRIPMC) by connecting a diverse array of people throughout the US with an interest in pest management policy and implementation. In October 2005, members of Tennessee's state contact program met with University of Kentucky faculty to determine the needs of Kentucky agriculture. Information obtained from attendees was posted on a website for public viewing (<http://web.utk.edu/~extepp/TNPMIN/KY-Priorities.htm>). Priorities for Kentucky agriculture, as provided by attendees of the meeting, included:

- Investigate and explore crop rotations with grain sorghum
- Explore markets for grain sorghum
- Establish pest management principles in grain sorghum production
- Investigate insect, weed and/or disease pressures in fields with varying plant densities
- Investigate possible cotton production in lower western counties of Kentucky
- Improve production of high quality hay

State, Federal and other organizations often fund projects using input from state stakeholders (producers, extension personnel, researchers, regulatory officials, grower

groups, etc.). By having a listing of state priorities available to the public, industry and governmental agencies, and individuals interested in working in these reported areas are more likely to obtain funding for their proposed projects.

In an effort to provide current and accurate information for the SRIPMC, another stakeholder meeting is being scheduled for 10:00am (EST) on October 6, 2006. Your input is requested and we would like for you (state production specialists, growers, grower groups and extension agents) to attend. Due to the increased cost of travel, this year's conference will be held using a teleconferencing system. Only 25 seats will be available, however we would still like for you to voice your opinion. If you are not able to attend, please contact me (Darrell Hensley) or Doug Johnson (doug.johnson@uky.edu) with any of your pest management production concerns. To attend the conference please email dhensley@utk.edu or phone 865-974-7958. A toll-free conference phone number will be provided for the first 25 individuals who express interest in attending the event.

TOBACCO

END-OF-SEASON DISEASE MANAGEMENT TIPS

by Kenny Seebold

With the 2006 growing season drawing to a close, we need to begin thinking about diseases and how to go about getting a head start on managing them in 2007. Blue mold created more than a few problems for our growers, particularly in the early part of the growing season, and black shank was as severe as it was in 2006. It

really is hard to say what the 'big problem' will be from one year to the next; however, growers can take some steps now that can make managing all diseases in 2007 an easier job.

The first, crucial step is to institute good sanitary practices on the farm. Many diseases that we see in the float system and field survive between crops on equipment and plant residues. Transplant houses and outdoor beds should be cleaned and sanitized now to cut down overwintering populations of pathogens. Plant debris and trash should be buried or burned, and all trays should be cleaned carefully, sanitized as recommended (or destroyed), and stored properly. In the field, particularly where black shank was present, all crop debris needs to be turned in as quickly as possible after harvest. The black shank pathogen (as well as *Rhizoctonia* and *Pythium*) can survive quite well tobacco residue, and stalks left in the field make a potent source of inoculum for outbreaks of disease next year. By plowing crop residues under now, there will be more time for soil microbes to break down plant matter. This will have strong impact on reducing pathogen survival over the winter – greater than waiting until next spring to incorporate crop residue.

It's also time to think about crop rotation. The best tool in our arsenal for managing diseases like black shank is rotation to a non-host crop. Even though we are many months from planting, growers need to start the planning process and make decisions on field choice and potential rotation crops. Now is also a great time to think about variety selection and to begin planning for the production of transplants. Given the troubles we had with blue mold and out-of-state transplants, those growers who will not grow their own seedlings should weigh their choice of transplant supplier carefully!

Please check the KY Tobacco Disease Information page in the coming months for reports on our 2006 fungicide trials, as well as management tips and other news relating to tobacco diseases (<http://www.uky.edu/Agriculture/kpn/kyblue/kyblue.htm>).

CORN

NORTHERN LEAF BLIGHT

by Paul Vincelli

I've received some reports of unexpectedly high levels of northern leaf blight (NLB) in a few fields in western Kentucky. Although weather this past season wasn't particularly conducive to the disease, levels of primary inoculum probably were higher than normal in many fields. Recall that many fields planted to corn with low levels of resistance to NLB were severely damaged during the cool, wet

weather of 2004, and following rotation to soybeans in 2005, many likely went back to corn this season. Couple this with the generally drier than normal in 2005, which likely reduced natural decomposition of corn residues from 2004, increasing the survival potential of the fungus that causes NLB.

Although substantial damage from NLB was not widespread this season, enough of it was observed that producers should pay attention to this disease when selecting hybrids for 2007. It would probably be advisable to be sure there is at least a moderate level of resistance in fields where nearby residue from 2005 provides a source of spores for NLB as well as gray leaf spot. Without question continuous corn fields should have substantial levels of resistance to both diseases, and even in rotated fields, one should consider the level of resistance to these diseases.

SHADE TREES & ORNAMENTALS

WILD MUSHROOMS - TO EAT OR NOT TO EAT?

by John Hartman

That is the question. Recent heavy rains throughout Kentucky will very likely bring out an abundance of mushrooms. Mushrooms grow and fruit in fields, forests and landscapes throughout Kentucky almost any time of year, but fall is an especially good time to see a diverse number of these common, often ephemeral life forms. As we savor or labor in our landscapes or hike through forests and fields enjoying the fall colors, a great variety of mushrooms can be seen growing on the ground, in landscape mulch, in the duff on the forest floor, or out in the open meadow. They are also commonly seen on decaying logs, dead branches, and even on live trees. For many people, there is a great temptation to gather and eat these fruiting bodies of fungi that we call mushrooms, toadstools, brackets, or conks.

The most frequent answer we give to the question "To eat or not to eat?" is "NO, do not eat wild mushrooms!" Most of us do not have sufficient expertise to tell the poisonous ones from the edible mushrooms. Even when a sample is submitted to the plant disease diagnostic laboratory and those of us in the lab are pretty sure of the mushroom's identity and that it is edible, we still say no. Who knows if the specimen we examined is the same as, or is representative of, what the mushroom hunter is gathering and eating? Similarly, we suggest that County Extension Agents giving advice to mushroom hunters just say no when it comes to fungal edibility.

Fungi which form mushroom-like fruiting bodies are a

diverse group of organisms that grow mostly as saprophytes, but sometimes as parasites or as symbionts. As saprophytes, fungi are sometimes regarded as the vultures of the plant world, scavenging on already dead plant material and breaking the complex plant structures into humus, thus recycling dead plants into the soil for future use. For most of their lives, mushroom fungi grow as fine threads of hyphae throughout the decaying vegetable matter, decomposing wood, or sometimes the live tree that is their home. With the need to reproduce and spread spores for new colonization of the fungus, these organisms produce interesting mushrooms which are sometimes tasty and sometimes deadly poisonous. Mushrooms do not need to be eaten – they can be simply enjoyed for their beauty and diversity.

Mulch, in the landscape, especially wood chips used as a ground cover or to protect trees, is a good substrate for a variety of mushrooms. But mushrooms can emerge out of the lawn or even the driveway in the absence of visible decaying vegetable matter. In such cases, the fungi are growing on decaying wood or dead tree roots buried in the ground. Some mushrooms such as mycorrhizal fungi growing in the lawn are symbiotic with live roots, the symbiosis benefiting both the fungus and the tree. Still others growing from the roots, the base of the tree trunk, or even up on the trunk and limbs may be parasites in the process of killing their host.

Mushrooms with typical stalks and caps are often found growing in the lawn, sometimes in circles called fairy rings. Also sometimes referred to as toadstools, these fungi also grow from buried organic material such as a decaying root. Other mushrooms such as the shoestring root rot fungus grow at the base of trees infected with root and butt rot. Another fungus, called the “dead man’s fingers”, grows as hard, black projections resembling a mummified hand from the roots of live trees in the lawn. The “dead man’s fingers” fungus also causes root rot disease. And yes, some toadstools are so tough they push their fruiting bodies right up through an asphalt driveway. Growing on wood or organic material buried beneath the drive, in their struggle for survival they can damage property. In the meadow, giant puffballs are among the most spectacular of mushrooms. These white spheres, often baseball-sized, may grow to the size of a basketball. Mature puffballs will emit a cloud of powdery brown spores through an opening in the top when prodded. If this mushroom is harvested early, when the flesh is still white, it is edible. In the forest one can observe everything from large, rigid conks on trees to petite little fungi resembling tiny parasols or tea-cups growing on the humus of the forest floor.

Thus, mushrooms are an important part of the awe and

wonder of nature that is present in the wild and even in our own yards. They are mostly helpful in the natural scheme of things, keeping dead plant material from accumulating to intolerable levels. Although some mushrooms can be eaten, mushrooms can also be enjoyed just for being fungi – for their uniqueness, variety, and unusual life habits.

If mushrooms are to be eaten, mushroom hunters must know for sure what species they are preparing because both poisonous and non –poisonous species can closely resemble one another. Consult with experts who have experience in identifying, edible mushrooms. One can learn from experts who organize mushroom forays for avid amateurs and naturalists each fall. There are also numerous books on mushroom identification such as: *Mushrooms Demystified* by David Arora, *Mushrooms of North America* by Orson K. Miller, Jr., *Mushrooms and Other Fungi of Land Between the Lakes* by W. J. Sundberg and J. A. Richardson, *Introduction to Mushroom Hunting* by V. K. Charles, *Audubon Society Field Guide to North American Mushrooms* by G. H. Lincoff, and *Common Fleshy Fungi* by C. M. Christensen.

INSECT PESTS OF HUMANS

WEST NILE STILL ACTIVE IN THE STATE by Lee Townsend

The latest report (as of 25 September) on West Nile virus in Kentucky is available from the Kentucky Cabinet for Health and Family Services web site at chfs.ky.gov/NR/rdonlyres/432456F6-6C91-4F9D-BC90-CEAC07F85C30/0/Wnvmmap122006.pdf

Here is a comparison of cases so far in 2006 compared to 2005. Keep in mind that mosquitoes can remain active for several more weeks this fall.

Cases	2005	2006 to date
Human	5	5
Horse	9	14
Bird	6	2

Most of the 2006 virus activity is west of I-65, it was mostly east of there in 2005. There were single human cases diagnosed in Campbell, Grant, and Jefferson and 2 cases in Kenton in 2005. So far this year, there have been single cases in Fayette and Todd and 3 cases in Christian county.

The latest review of home mosquito control can be found in KPN issue 1099.

http://www.uky.edu/Ag/kpn/kpn_06/pn060703.htm#house It's good information to review if

you are still getting bitten.

DIAGNOSTIC LAB-HIGHLIGHTS

by Julie Beale and Paul Bachi

Recent agronomic samples in the PDDL have included anthracnose and Rhizoctonia stem canker on alfalfa; Curvularia leaf spot on clover; downy mildew, potassium deficiency, stem canker, sudden death syndrome, frogeye leaf spot, anthracnose, charcoal rot, pod and stem blight, soybean cyst nematode and target spot (*Corynespora*) on soybean; black shank, bacterial soft rot, frogeye leaf spot, tomato spotted wilt virus and target spot on tobacco; rust, gray leaf spot, and Gibberella stalk rot on corn.

On fruit and vegetable samples, we diagnosed Botryosphaeria canker, southern blight, sooty blotch and flyspeck on apple; brown rot on apricot; bird injury and downy mildew on grape; black knot on plum; bacterial leaf spot on cherry; Septoria leaf spot on blackberry; downy mildew on cucumber; gummy stem blight and powdery mildew on muskmelon; Cercospora leaf spot on turnip; scurf on sweet potato; Phyllosticta leaf spot on bean.

On ornamental and turf samples, we have seen bacterial leaf blight, Rhizoctonia crown and stem rot, Pythium root rot, and Fusarium wilt on chrysanthemum; Cercospora leaf spot on hydrangea, lilac, astilbe and goatsbeard; Phloeospora leaf spot on mulberry; black root rot on holly; Cristulariella leaf spot on maple; Rhizosphaera needle cast on spruce; Botryosphaeria canker on redbud; rust on aster; anthracnose on hosta; Septoria leaf spot on peony; bacterial leaf scorch and Actinopelte leaf spot on oak; Diplodia tip blight on scotch pine; brown patch and anthracnose on fescue; gray leaf spot and Curvularia leaf spot on perennial ryegrass; and smut on Bermudagrass.

INSECT TRAP COUNTS UKREC, Princeton KY

September 8-15, 2006

Black cutworm.....	0
True Armyworm.....	4
European Corn Borer.....	3
Southwestern Corn Borer.....	20
Corn Earworm.....	25
Fall Armyworm.....	9

September 15-22, 2006

Black cutworm.....	0
True Armyworm.....	2
European Corn Borer.....	0
Southwestern Corn Borer.....	1
Corn Earworm.....	18
Fall Armyworm.....	5

View UKREC trap counts for the entire 2006 season at – <http://www.uky.edu/Ag/IPMPrinceton/Counts/2006trapsfp.htm>

View trap counts for Fulton County, Kentucky at - <http://ces.ca.uky.edu/fulton/anr/Insect%20Trap%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.


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.

COOPERATIVE
EXTENSION
SERVICE



UNIVERSITY OF KENTUCKY
College of Agriculture

Cooperative Extension Service

University of Kentucky

Entomology

S-225 Ag. Science Center North

Lexington KY 40546-0091