WATCH FOR:
SQUASH BUG active; STALK BORER damage in border rows of corn and tobacco; CUCUMBER BEETLES on yellow squash

TOBACCO

UPDATE ON BLUE MOLD
by Kenny Seebold

The epidemic of blue mold in KY continued to expand during the week of June 19, 2006. Cases of the disease were confirmed for the first time in Bath, Greenup, Mercer, Wolfe, and Warren Counties, and new cases were found in Carter and Morgan Counties. Twelve counties have now reported blue mold: Adair, Bath, Bourbon, Boyle, Carter, Greenup, Magoffin, Mercer, Menifee, Morgan, Warren, and Wolfe. Outside KY, blue mold has been found in Lancaster, PA and more recently in Georgetown, OH.

The epidemic in KY is concentrated primarily in the eastern portion of the state, and most cases in this area can be traced back to the use of plug plants imported from FL. Despite the increasingly widespread nature of the epidemic, damage to the tobacco crop has been minimal overall. The most severe cases of blue mold thus far have occurred where systemically infected seedlings were set. The systemic phase of blue mold can be devastating on seedlings – at best these plants fail to grow and can serve as a source of spores that will fuel further outbreaks, and at worst these plants can wilt and die. Systemic blue mold cannot be cured with fungicides. Plants should be destroyed and fields re-set, if practical, in situations where systemic blue mold is prevalent on young tobacco.

The presence of blue mold in central and western KY indicates that we are likely seeing movement of blue mold from either an established source or an undiscovered source. These sources can produce many spores that will serve to spread the disease further across the region. Favorable conditions for development and spread of blue mold are likely across many parts of KY during the week of June 26. At the moment, I am urging our growers to keep up preventive applications of fungicide to be on the safe side. A list of fungicides that can be used on tobacco can be found at www.ca.uky.edu/agcollege/plantpathology/ext_files/PPFShtml/ppfsagt8.pdf, or in Kentucky Pest News No. 1095 (http://www.uky.edu/Ag/kpn/pdf/kpn_1095.pdf). See Kentucky Tobacco Disease Information page for regular updates on blue mold and other diseases (http://www.uky.edu/Ag/kpn/kyblue/kyblue.htm).

FRUIT CROPS

BRAMBLES - DISEASES MAY CAUSE POOR FRUIT SET AND STERILITY
by John Hartman

Samples of bramble fruits (red and black raspberries and blackberries) with poor or no fruit set are appearing in the Plant Disease Diagnostic Laboratory this month. Sterility symptoms being observed include no fruit set, small, misshapen berries, and small and crumbly fruits.

Potential causes of sterility in brambles:
- Anthracnose disease. Fungi causing anthracnose diseases were active during cool, moist periods this
spring. Infections of flowers during bloom could result in damaged fruit or no fruit set. The new canes emerging this spring may also begin to show anthracnose lesions and cankers.

- **Virus diseases.** A number of viruses affect raspberry and blackberry fruit production. Some cause sterility problems.
  - Raspberry Mosaic Virus causes small, crumby berries. Leaves may have mosaic symptoms consisting of light green to dark green or yellow to green mottling and blistering of leaves. The plants show a progressive stunting of growth and poor yield.
  - Raspberry Leaf Curl Virus reduces fruit production and fruits may be small, crumby, and seedy. Infected leaves are rounded, downward curled, and have a dark green greasy appearance.
  - Tobacco Streak Virus also reduces fruit production. Leaves are deformed with yellow blotches.
  - Tomato Ring Spot Virus causes small, crumby fruit. Leaves may show pale yellow rings and plants are stunted.

- Lack of bee activity may result in a crumby berry condition. Normally, raspberry flowers have 100-125 pistils. Typically, 75-85 drupelets will develop. When pollination is incomplete and fewer drupelets develop, the berry will often crumble when it’s picked.

- Crumby berry and poor fruit set can also be caused by drought, low soil fertility, insect damage, winter damage, hereditary abnormalities, variations in male and female sterility, deep cultivation and nematode infestations.

**Managing sterility in brambles:**

- Determine the cause and extent of the problem. Care must be taken to insure that the symptoms of sterility are not confused with cultural problems. If a bramble planting blooms and sets fruit well one season and then the planting has a poor crop the next season, suspect disease or insect injury to the berry cluster stems or poor pollination.

- Virus problems spread in the planting more gradually from year to year. Virus-infected plants may also show leaf symptoms. If these plants are also showing sterility symptoms, drastic action may be needed. Sterility problems related to virus infections can destroy a planting, growers will not want to take any chances.
  - Remove and burn plants that fail to set fruit, and dig up roots to prevent new shoots from appearing.
  - Avoid replanting in the spot for several years afterward.
  - Plant only state-certified plants that were from fruitful stock from reputable nurseries.

- Eliminate nearby wild brambles.
- Maintain good weed control.
- Provide a sunny and open environment for growing blackberries and raspberries.
- Apply fungicides as needed to control anthracnose disease.

**PASTURES**

**ARMYWORM MOTH FLIGHT BEGINS FOR SECOND GENERATION**

by Lee Townsend

Armyworm moth flight for the second generation is underway and should continue over the next few weeks. However, it is highly unlikely that armyworm numbers will reach the levels seen in central Kentucky pastures earlier in 2006. Historically, armyworm outbreaks have been limited to the first generation with little noticeable damage from the second brood. Several factors come into play to prevent large second generations: 1) many armyworm larvae from the first generation are killed by beneficial insects and or diseases before they develop to the adult stage. Unfortunately, much of this mortality occurs after they have done most of their feeding. 2) The moths for the second generation will disperse over the area, this should help to dilute numbers even more. 3) The much hotter temperatures of mid-summer are not favorable for armyworms, many will not be able to develop successfully in hot, dry grassy areas.

Conditions and circumstances can vary from field to field and from farm to farm. Those wishing to watch for problems should begin to check pastures for signs of armyworms by about the second to third week of July. Give priority to predominately bluegrass pastures with the tallest growth and in the lushest condition relative to surrounding pastures. Moderately grazed pastures or those that are close cut, or very dry, are much less likely to be affected. If treatment is needed, it may involve only limited areas so spot applications of Bt (Bacillus thuringiensis) – based insecticides could be used for control.

There will be a third moth flight beginning in mid-August. The eggs from these moths will hatch and the larvae will feed for a while before moving down into the duff and becoming inactive for the winter. They will resume development in the spring and the subsequent moth flight will produce the first generation for 2007. Conditions during the winter of 2006 – 2007 will play a major role in the survival of these larvae an ultimately determine the moth flight for early 2007.
SORRY, BUT CHLOROTHALONIL IS NOT LABELED FOR USE ON HOME LAWNS
by Paul Vincelli

At a recent training session, I was reminded of how easily important label restrictions on fungicides can “slip under the radar” of overworked professionals. Thus, this article is a reminder that chlorothalonil fungicide is no longer labeled for use in home lawns.

Sorry, Not Allowed
Somewhere in the Directions for Use section of the label, you will find the following sentence: “NOTE: Use of this product on home lawns (turf) is prohibited.” Chlorothalonil is still labeled for use to control diseases on turf in various settings, such as golf courses, lawns around institutional, public, commercial and industrial buildings, parks, recreational areas, and athletic fields. However, it cannot be applied to home lawns.

Rationale
Prior to the institution of this restriction several years ago, chlorothalonil was probably the #1 fungicide used on residential lawns. However, the elimination of home lawn use was agreed to by manufacturers of chlorothalonil in order to reduce overall exposure of two populations to the active ingredient and to HCB (hexachlorobenzene, a carcinogenic contaminant found in chlorothalonil formulations):

1. toddlers exposed after the application on home lawns, and
2. residential handlers and applicators of chlorothalonil on home lawns.

Keep in mind that chlorothalonil is registered for disease control on a wide variety of crops including food crops. In order to reduce overall exposure to chlorothalonil and to HCB in these populations and be in compliance with the Food Quality Protection Act, manufacturers agreed to voluntarily remove home lawn uses from the label.

Alternatives to Chlorothalonil
Generally I discourage the use of fungicides on home lawns anyway, encouraging instead (1) the use of cultural practices only and (2) lowering one’s aesthetic standards for the lawn so that some cosmetic damage from turf diseases in a home lawn is acceptable. However, for situations where fungicidal control is desired, lawn care companies can choose from a number of commercial fungicides for controlling diseases on home lawns. These are listed in the UK Extension publication, Chemical Control of Turfgrass Diseases, available at http://www.ca.uky.edu/agc/pubs/ppa/ppa1/ppa1.pdf. Most of the fungicides listed are not readily available to homeowners, at least in small quantities suitable for homeowner use. Homeowners interested in making their own fungicide applications to their lawns are advised go to their local garden supply store and see which fungicides are available to them with labels that:

1. permit applications on turfgrasses, and
2. do not disallow use on home lawns.

SHADE TREES & ORNAMENTALS

FALL WEBWORM TENTS APPEARING
by Lee Townsend

The light gray silk tents of fall webworm caterpillars, recently hatched from masses of 400 or so eggs, are beginning to appear at the ends of tree branches. These caterpillars are covered with long white to yellow-tan hairs. They feed on over 100 species of deciduous trees but black cherry, walnut, hickory and mulberry are favorites. The larvae incorporate the leaves they are eating into their tent. The tent is expanded to include more leaves as needed. They can be numerous enough to completely defoliate trees but this is not common. Usually, little real damage is done to trees but the ugly webs detract from aesthetic value of the tree. Accessible nests can be pruned out and discarded. Bt insecticides are effective on small larvae if chemical control is necessary and the sprayer can reach foliage around the nest. There are two generations in Kentucky each year- from mid-June to early July and again in August.
PESTICIDE NEWS & VIEWS

EPA SEEKING COMMENTS ON GUTHION PHASE OUT AND NEW IMIDAN RESTRICTIONS

To increase protection for farm workers and the environment, EPA is proposing to phase out the remaining uses of azinphos-methyl (AZM, commonly sold as Guthion). Use on almonds, Brussels sprouts, pistachios, walnuts, and nursery stock will be phased out by 2007, and use on apples, blueberries, cherries, parsley, and pears by 2010.

During the phaseout, EPA is proposing additional restrictions, including reduced annual application rates, additional worker monitoring, and larger buffer zones to help minimize risks. The Agency expects growers of these crops to successfully adopt and transition to the available safer alternatives. All other uses of this pesticide have been voluntarily cancelled by the manufacturer.

EPA is also seeking comment on lengthening the Restricted Entry Intervals (REIs) for nine phosmet (commonly sold as Imidan) uses. The Agency is proposing these additional restrictions to mitigate potential risk to farm workers.

Both AZM and phosmet are organophosphate (OP) insecticides and are alternatives for one another in many instances. While AZM provides important pest control benefits to growers of apples and other crops, it poses potential risks of concern to farm workers, pesticide applicators, and aquatic ecosystems. The risk of concern for phosmet is for workers reentering treated areas.

These steps are being taken as part of an ongoing reevaluation of existing pesticides. The Agency has carefully considered grower impacts and ecological and worker risks based on new data and information. EPA is publishing this proposal and inviting public comments for 60-days before issuing a final decision. The Federal Register notice is available on EPA’s Web site at http://www.epa.gov/fedrgstr/EPA-PEST/2006/june/Day-09/p8929.htm. Comments may be submitted electronically at http://www.regulations.gov in docket number EPA-HQ-OPP-2005-0061 for AZM and docket number EPA-HQ-OPP-2002-0354 for phosmet. For additional information on AZM, please visit www.epa.gov/pesticides/op/azm.htm. More information on phosmet is available at www.epa.gov/pesticides/op/phosmet.htm.

DIAGNOSTIC LAB-HIGHLIGHTS

by Julie Beale and Paul Bachi

Agronomic samples received in the PDDL this past week included Lepto leaf spot and boron deficiency on alfalfa; northern corn leaf blight, gray leaf spot and zinc deficiency on corn; black shank, blue mold, tomato spotted wilt virus, tobacco ringspot virus, manganese toxicity, temporary phosphorus deficiency, Pythium root rot, blackleg, soreshin, transplant shock and chemical injury on tobacco.

On fruit and vegetable samples, we diagnosed Phytophthora root rot on blueberry; anthracnose and black rot on grape; Pythium root rot and sterility possibly related to virus infection on raspberry; cedar-apple rust on apple; brown rot on peach; powdery mildew on squash; Fusarium and Rhizoctonia stem/root rots on bean; bacterial spot on pepper; tomato spotted wilt virus, Septoria leaf spot, Pythium root rot, timber rot (Sclerotinia) and early blight on tomato.

Ornamental samples included Rhizoctonia stem rot on petunia; Pythium root rot and Rhizoctonia/stem root rot on chrysanthemum; leaf scorch on hosta (poor site conditions); anthracnose on lily; black spot and Botrytis blight on rose; bacterial leaf spot on hydrangea; Botryosphaeria canker on hazelnut and rhododendron; anthracnose and leaf hopper burn on maple; anthracnose on dogwood; and Phyllosticta leaf spot on beech.

INSECT TRAP COUNTS

UKREC, Princeton KY

June 16-23, 2006
Black cutworm.................................................................0
True Armyworm ..........................................................7
European Corn Borer.....................................................0
Southwestern Corn Borer..............................................8
Corn Earworm..............................................................5
Fall Armyworm............................................................0

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.

in Kentucky each year- from mid-June to early July and again in August.
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.