

KENTUCKY PEST NEWS

ENTOMOLOGY • PLANT PATHOLOGY • WEED SCIENCE

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

Number 1122

April 9, 2007

WATCH FOR ANNOUNCEMENTS

- Information on honey bee colony collapse disorder
- Trap Counts ABOVE average for armyworm and black cutworm

TOBACCO

- Damping-off and target spot caused by rhizoctonia solani: management in the float system
- Tobacco float plant insect pests

CORN

- Cold, wet soils could affect stands

FORAGES

- Alfalfa weevil and freezes

WHEAT

- Proline fungicide now labeled for use on wheat in Kentucky

FRUIT

- Freeze damage can affect plant health

SHADE & FOREST TREES & ORNAMENTALS

- *Phytophthora ramorum*: Quarantine and regulations - new amendments from APHIS
- Freeze damage can affect plant health (*see Fruit*)

HOUSEHOLD

- Protect your home from termites

DIAGNOSTIC LAB-HIGHLIGHTS

WATCH FOR:

CANKERWORMS AND LOOPERS in trees; HONEYLOCUST PLANT BUGS emerge; ORIENTAL FRUIT MOTH flight; STRAWBERRY CLIPPER damage; BLACK CUTWORM AND ARMYWORM MOTHS flying now; RED-BANDED LEAFROLLER flight continues through apple bloom; Eastern tent caterpillar tents on wild cherry trees; CARPENTER BEES tunneling in wood; ELM LEAF BEETLES move to feed on elms; Frothy masses of SPITTLEBUGS on alfalfa and red clover.

ANNOUNCEMENTS

INFORMATION ON HONEY BEE COLONY COLLAPSE DISORDER

Colony Collapse Disorder (CCD) is the name that has been given to the latest, and what seems to be the most serious, die-off of honey bee colonies across the country. It is characterized by, sudden colony death with a lack of adult bees. Honey and bee bread are usually present and there is often evidence of recent brood rearing. In some cases, the queen and a small number of survivor bees may be present in the brood nest. It is also characterized by delayed robbing and slower than normal invasion by common pests such as wax moth and small hive beetles.

Information on CCD along with links to incidence maps, current research, and recommendations is available at <http://maarec.cas.psu.edu/ColonyCollapseDisorder.html> (Mid Atlantic Apiculture

Research and Extension Consortium). To report suspected incidents in Kentucky or to get the latest information, contact Phil Craft, State Apiarist, 502 564-5665 ext. 227 or phil.craft@ky.gov.

TRAP COUNTS ABOVE AVERAGE FOR ARMYWORM AND BLACK CUTWORM by Doug Johnson

Counts of armyworm and black cutworm moths captured in UK-IPM pheromone baited traps are greater than the five year averages. It is too early to tell if the trend will continue; however, it certainly bears watching. In addition, we have received reports from our colleagues at Pioneer Seed that they are seeing large black cutworm populations in very southern Tennessee and northern Alabama.

The current cold snap will certainly slow down the development of these insects, but it may not actually reduce the population size. One would be wise to watch the pheromone trap counts over the next several weeks to see if the populations start to increase once again after the weather warms.

You can view the UK-IPM trap counts in graphic or data table formats. Simply go to the UK-IPM web pages at: <http://www.uky.edu/Ag/IPM/ipm.htm>. Look just below the graphic to "NEW Regional Trap Counts". If you select the "Regional Trap Counts" you will find data tables for six insects for four different locations; Princeton

and Lexington, KY and Jackson and Milan, TN. If you click on the insect name you will be shown these same counts displayed as graphs.

The graphic format was specifically designed to allow you a quick and easy view of the current year's situation in relation to the same location in past years. You should be aware of several differences. We only have historic data for the Princeton location. On the Princeton graphs you will see two and sometimes three lines. A green line for the current year, a blue line for a rolling five year average, and when available, a red line indicating the populations in a known "outbreak" year.

You should understand the relationships of these lines one to another are NOT certain predictors of problems or a lack of problems. This is especially true in individual fields. In any given field it is possible to have a problem when low counts are reported and conversely not have problems when high counts are reported. There are many factors other than insect population size that affect insect outbreaks (e.g. crop stage, local weather, presence of natural enemies etc.). Fields must be scouted individually. Nonetheless, these graphs can indicate to you when the area is at higher or lower relative risk to a specific insect problem.

TOBACCO

DAMPING-OFF AND TARGET SPOT CAUSED BY RHIZOCTONIA SOLANI: MANAGEMENT IN THE FLOAT SYSTEM

by Kenny Seebold

We've seen some wild weather around Kentucky over the past few weeks. A heat wave followed by freezing temperatures has stressed tobacco seedlings around the state. Our diagnostic labs in Lexington and Princeton are beginning to report a number of different issues occurring on tobacco transplants. Along with a number of environmental disorders associated with temperature extremes, we have diagnosed several cases of damping-off caused by *Rhizoctonia solani*. This week, we'll take a closer look at damping-off and a related disease, target spot, and discuss management options.

Damping-off

The float system creates near-ideal conditions for *Rhizoctonia solani* AG (anastomosis group)-4, the causal agent of damping-off (or soreshin) to grow and infect tobacco seedlings. Damping-off usually occurs early in the development of the tobacco seedling and first appears as a water-soaked lesion at the base of the plant. Later, the lesion will take on a sunken, brown appearance and will eventu-

ally girdle the plant. Girdled seedlings will fall over and eventually die. Occasionally, the entire stem of affected plants may show discoloration, and decay may spread into leaves. Leaves alone may become infected and will first develop water-soaked lesions that enlarge over time, often spreading to the stems on young seedlings. Seedlings with mild infections of *R. solani* that are later transplanted may contribute to large-scale outbreaks of soreshin in the field, and may also be more susceptible to black shank and Fusarium wilt.

High humidity and temperatures above 70 °F are optimal for growth of *R. solani*. A common inhabitant of agricultural soils, *R. solani* can survive on organic matter and will colonize growth media used in tobacco transplant production. Primary infections occur when actively growing hyphae, or fungal threads, come in contact with roots or stems. Hyphae then form infection cushions that produce enzymes that will degrade plant tissues. Infections can spread from plant to plant, and organic matter (plant debris) can serve as a bridge between infected and healthy seedlings. Survival structures called sclerotia are formed after the food source has been exhausted.

Infested soil or Styrofoam trays are the most common inoculum sources of *R. solani*. As with *Pythium* spp., tobacco roots embedded in Styrofoam float trays will serve as a source of inoculum of *R. solani* (in the form of sclerotia or dormant hyphae) if trays are re-used.

Good sanitation is the best way to manage soreshin in the float system. The first step is to limit the amount of fungal inoculum in the transplant system. New trays will all but eliminate the risk of carrying over inoculum from previous transplant cycles, but this option is expensive and creates issues with disposal of used trays. Used trays should be steam-heated to 165-170 °F for 30 minutes (after the heating chamber reaches operating temperature). Dipping used trays in bleach or other disinfectants will not eliminate *R. solani* from old trays because the chemicals cannot penetrate and reach pathogen-infested roots that have grown into the tray. Proper ventilation, which minimizes leaf and stem wetness, and maintenance of fertility are important considerations as well. Complete control of soreshin with fungicides is not possible; however, some suppression can be achieved with Dithane DF. Dithane DF can be applied at a rate of 0.5 lb/100 gallons of finished spray solution (or 1 level teaspoon per gallon) once plants have reached the size of a dime. Begin applications before symptoms appear and continue on a 5-day schedule until transplanting.

Target Spot

Target spot is caused by the sexual stage of *R. solani* AG-3,

Thanatephorus cucumeris. Target spot begins in localized areas, or foci, and commonly occurs after the plant canopy has fully formed. Small, water-soaked lesions appear on leaves and will expand rapidly under conditions of warm temperatures (> 75 °F) and high humidity. Lesions normally have a transparent-light green appearance and may be surrounded by a chlorotic (yellow) halo. Dead leaves will turn brown and adhere to the float tray. Web-like strands (mycelia) of fungal growth may be present on leaves and stems when humidity is high. The target spot pathogen can also cause damping-off of younger seedlings. Seedlings with target spot that are transplanted can contribute to epidemics in the field later in the season.

Inoculum carried over on *R. solani*-infested trays is the most common way for the pathogen to enter the float system, although inoculum may move in on air from sources outside the transplant facility. Basidiospores, generated by the sexually reproducing phase of this fungus (*T. cucumeris*), are released under favorable conditions and contribute to spread of the disease within the float house.

As with soreshin, sanitation and good growing practices are the best defense against target spot. Research suggests that plants that are nitrogen-deficient show increased susceptibility to target spot; maintaining nitrogen within recommended levels will help suppress this disease. Reasonable control of target spot can be obtained with Dithane DF, as described for damping-off.

TOBACCO FLOAT PLANT INSECT PESTS **by Lee Townsend**

Very wet media, algal growth, and cool temperatures can contribute to problems with fungus gnats and shore flies in greenhouses and float systems. Adults are the noticeable stage but the larval stages of the shore fly can damage small plants in the cells, producing holes in the leaves that resemble the feeding of slugs and small cutworms.

The presence of these insects is usually overlooked until there is a massive swarm of adults sitting on the plant leaves. Orthene, or other acephate sprays, will kill adults and eventually may reduce their numbers but probably won't eliminate the problem. It is difficult to control the larval stages because they are down in the algae or under the protective cover of the leaves. Preventive control is based on keeping media from getting too wet and eliminating as many standing ground puddles as possible. Fungus gnats normally occur in low wet areas.

Occasionally, fungus gnat larvae can be serious pests in greenhouses. Most are scavengers, feeding on decaying organic matter in the growing media. However, some species will feed on root hairs, enter the roots, or even

attack the crown or stem of the plant. Infested plants generally lack vigor and may begin to wilt. Adults (gnats) can be seen running on the foliage before injury caused by the larvae becomes apparent.

Fungus gnats are small (1/8") black flies with comparatively long legs and antennae, tiny heads, and one pair of clear wings. Females lay tiny ribbons of tiny yellowish white eggs in the growing media that hatch within 4 days. The clear larvae are legless and have black heads. Larvae feed for about 14 days and pupate near the surface of the medium. Adults live only about a week. Under greenhouse conditions, about 20-25 days are required to complete a generation.

Shore flies also are small gnats but have short antennae, red eyes, and heavier, darker bodies. A pair of smoky wings with several clear spots can be seen when looking closely at the insect. They are good fliers and can be seen resting on most any surface in the greenhouse. They resemble winged aphids but aphids have two pairs of wings and the distinctive, tube-like cornicles on the abdomen, and do not move as quickly.

The life cycle is similar to that of the fungus gnat. The yellow to brown larvae, which may be up to 1/4" long, differ in having no apparent head. Both larvae and adults feed mostly on algae growing on media, floors, benches, or pots. Some have been seen boring directly into the base of small plants. Damaged plants will easily break off at the soil surface. The adults may spread soil pathogens inside the greenhouse.

CORN

COLD, WET SOILS COULD AFFECT STANDS **by Paul Vincelli**

The recent freezing conditions caused soil temperatures in most areas of Kentucky to plunge below 50°F for a few days. Corn seeds and seedlings are in stasis (sort of a "suspended animation") at or below 50°F, and they have a difficult time resisting infections by soilborne *Pythium* organisms that cause damping off. *Pythium* organisms are most active in wet soils. Fortunately, many areas did not receive soaking rains immediately before the freezing weather, although some areas did receive such conditions. Furthermore, rains and continued cold weather forecasted for some areas later this week could continue to provide conditions favorable for seed and seedling diseases.

Producers who seeded corn prior to this recent cold weather are encouraged to monitor stand establishment, especially if the soil in those fields has been wet for ex-

tended periods. That way, they can determine in a timely way whether reseeding is needed. The most recent UK *Corn and Soybean Newsletter* has an article that will help producers determine when replanting is a good idea. That article can be found on line at http://www.uky.edu/Ag/CornSoy/cornsoy7_5.htm.

FORAGES

ALFALFA WEEVIL AND FREEZES

by Lee Townsend

Alfalfa weevils are hardy little insects that brave erratic temperatures every spring. Our recent freezes may have had some impact but they are able to survive short periods of freezing temperatures. Watch for weevils when checking alfalfa for freeze damage. Damage to alfalfa top growth in effect reduces plant height to the point that smaller numbers of weevils can cause damage.

WHEAT

PROLINE FUNGICIDE NOW LABELED FOR USE ON WHEAT IN KENTUCKY

by Don Hershman

Last week, I was informed by the Kentucky Department of Agriculture that Bayer CropScience's fungicide, Proline 480 SC (active ingredient 41% prothioconazole) has received a section 3 label, and is now approved for use on wheat (plus other crops) in Kentucky. The wheat use rate range indicated on the label is 4.3 to 5.7 fl oz per acre, with a maximum of 9.37 fl oz per acre per year. Application is approved up to and including the beginning of crop flowering (Feeke's stage 10.51). Applications can be made by ground or aerial equipment, and cannot be applied within 30 days of harvest.

Proline was not developed to be Bayer's main wheat fungicide in the U.S. Rather, they are targeting a pre-mix product called Prosaro, which is a combination of prothioconazole and tebuconazole. Tebuconazole is the active ingredient in Folicur, the fungicide that has been used in Kentucky for Fusarium head blight and DON suppression the past three years. However, EPA has temporarily put a hold on the section 3 status of Folicur. Thus, the section 3 label for Prosaro (which contains Folicur) will not be granted in time for use on wheat in 2007.

According to Bayer product information and the results of numerous, independent research trials, Proline is somewhat more effective than Folicur in suppressing Fusarium head blight (head scab) and DON, is about the

same as Folicur for managing leaf blotch complex, glume blotch and tan spot, and is somewhat less effective than Folicur for managing leaf rust, stripe rust, and powdery mildew.

Most of the studies I am familiar with have looked at Proline mixed with the non-ionic surfactant, Induce. In the label's general section it does say, "Proline 480 SC is recommended to be used with a registered non-ionic surfactant at the lowest recommended labeled rate for most crops. Refer to the individual crop recommendations for those specific uses where a surfactant is not recommended". When you look at the wheat use recommendations on the Proline label, it does not mention the use a surfactant. Thus, based on the statement on the label, I assume Bayer's intent is that Proline should be mixed with a non-ionic surfactant when applied to wheat.

FRUIT CROPS, SHADE TREES & ORNAMENTALS

FREEZE DAMAGE CAN AFFECT PLANT HEALTH

by John Hartman

Plants growing in Kentucky gardens got an early start this spring due to abnormally warm temperatures during March so that many emerging flowers and foliage developed about two weeks earlier than normal. This past weekend, the tender growth received a record-setting blast of cold temperatures with lows that ranged from 19 to 24 degrees F. Gardeners now face a landscape of drooping shoots and killed flowers due to the cold temperatures. Damage will vary from location to location in Kentucky depending on how low the temperatures dropped and the extent of plant development.

Backyard fruits. According to the charts in our U.K. fruit spray guides, apples at the pink bloom stage through bloom and petal fall would be expected to suffer 90% death of the flowers at 25F. Similarly, peaches at bloom and later would suffer as well. Pears and plums are a little hardier and would lose 90% of their crops at 24F. So, expect reduced yields of tree fruits in the garden this season. Commercial fruit production is also very likely reduced statewide. Freeze injury is known to provide openings for fire blight bacteria (which were already at high levels due to previous warm weather) to infect the injured tissues. However, if the apple or pear tissues are killed by the freeze, fire blight may not be such a threat. Freeze-injured tissues may provide openings for fire blight bacteria in the coming weeks as they build up in warmer weather, however. Gardeners will need to wait and see.

Blueberries and strawberries were in bloom in many Kentucky gardens and it is apparent that these flowers were injured by the cold, so a reduced crop might be expected. Grapes in many locations are likely to have been injured with fruit production reduced by loss of primary blossoms. Secondary flowers should still emerge and produce some grapes.

Woody landscape plants. Dogwoods and redbuds are in bloom and the brightness of their flowers has been much diminished by the cold. Several species of early-emerging trees and shrubs had green, elongating shoots appearing before the cold arrived. Due to the freeze, many of these tender shoots are now limp, shriveled, and injured or dying with symptoms of scorching, browning or blackening of damaged tissue. Eventually, damaged or destroyed leaves may drop from the tree or shrub.

When temperatures warm up again, most landscape trees and shrubs that lost foliage will send out new shoots from latent buds, but there will be a cost. Re-foliation takes energy and reduces the plants' energy reserves that may be needed to fight diseases or adverse growing conditions later in the year. The number of species injured by the recent cold could be extensive but probably will include hydrangeas, Japanese maples, magnolias, and yellowwoods. In addition to shoot dieback, injury to cambial tissues may have also occurred so much of the damage may not be noticed for several more weeks or months.

The most unusual formations were seen on crepe myrtle. Early Easter morning, with temperatures below freezing, the stems and branches were covered with extruded white material. Closer examination revealed curved ribbons of ice, 1/2 to one inch wide, emanating all up and down the stems. Evidently, the freezing temperatures opened up vertical cracks on the trunk and branches. At the same time, perhaps, the sap was still flowing and while leaking from the cracks, the liquid froze into the ribbon-like icicles. It remains to be seen whether or not these cracks constitute injuries that later could provide avenues for entry of canker-causing pathogens. The crepe myrtle foliage was also brown from the freeze.

Gardeners will want to wait and see the extent of damage to woody landscape plants in the coming weeks. Be prepared to alleviate any potential stresses such as drought, disease, or insect infestations this growing season because energy reserves could be low for many of the affected trees and shrubs. Dr. William Fountain, Extension Horticulturist has provided Extension Agents with good advice regarding tree care following recent injury. Gardeners will want to avoid fertilizing injured trees and to care-

fully prune out dead twigs and branches as they occur.

Tender perennials. Many perennials had emerged significantly and exposed new vegetation to the cold. Asparagus shoots several inches high were completely bent over to the ground. Like other perennials, if the roots and crown are healthy, they will send out new shoots in the coming weeks.

SHADE & FOREST TREES & ORNAMENTALS

Phytophthora ramorum: QUARANTINE AND REGULATIONS - NEW AMENDMENTS FROM APHIS

by Patricia B. de Sá

Phytophthora ramorum is a fungus-like plant pathogen that infects a wide variety of plants causing sudden oak death on oak and tanoak trees, ramorum leaf blight and tip and shoot dieback on many woody plants, herbaceous plants and at least one kind of fern. The plants affected may be ornamental plants or plants native to forests and other natural environments. This pathogen is present in woodlands in California and Oregon, and has been found in nurseries in California, Oregon, Washington and other states. The spread of the pathogen can be avoided or limited by the use of good management practices in nurseries, early detection of infected plants and eradication of these plants are important to stop *P. ramorum* from spreading.

Phytophthora ramorum regulations have been amended by the Animal and Plant Health Inspection Service (APHIS), USDA. This interim rule is effective from February 27, 2007 and is an effort to prevent the spread of *P. ramorum* to non-infested areas of the United States. The existing regulations are being amended to "establish restrictions on the interstate movement of nursery stock from nurseries in non-quarantined areas in California, Oregon and Washington" and "to update conditions for the movement of regulated articles of nursery stock from quarantined areas, to add restrictions on the movement of decorative trees without roots from quarantined areas, as well as to restrict the interstate movement of all other nursery stock from nurseries in quarantined areas." APHIS is also "updating the list of plants regulated because of *P. ramorum* and the list of areas that are quarantined for *P. ramorum*." Other amendments are also being made to the regulations.

The interim rule can be viewed and comments may be submitted and will be considered if received on or before April 30, 2007. Comments may be submitted via the inter-

net through the Federal Rulemaking Portal, go to <http://www.regulations.gov>, and from the agency drop-down menu select "Animal and Plant Health Inspection Service" and click on "Submit." In the Docket ID column select APHIS-2005-0102 to read the rule, submit a comment or to view public comments. Supporting and related materials are available electronically and can be viewed from this site. The "User Tips" link on the site can be used to view information on how to use Regulations.gov and instructions for submitting comments and viewing documents. Comments may also be submitted through Postal Mail/Commercial Delivery, by sending four copies of your comments to Docket No. 01-054-1, Regulatory Analysis and Development, PPD, APHIS, Station 3C71, 4700 River Road Unit 118, Riverdale, MD 20737-1238.

The regulation changes of 2007 are consistent with the emergency order issued on December 21 2004 that restricted the interstate movement of nursery stock from nurseries in California, Oregon and Washington. The requirements established by this rule supercede the requirements of the emergency order.

FREEZE DAMAGE CAN AFFECT PLANT HEALTH

by John Hartman

See Fruit.

HOUSEHOLD

PROTECT YOUR HOME FROM TERMITES

by Mike Potter

The entomology department receives many calls from clients wanting to know what can be done to protect their home from termites. Oftentimes they also wonder if a certain practice or condition is likely to cause termite problems. Homeowners can reduce the risk of infestation by following these guidelines.

1. Eliminate wood contact with the ground. Many termite infestations result from structural wood being in direct contact with the soil. Earth-to-wood contact provides termites with easy access to food, moisture, and shelter, as well as direct, hidden entry into the building. Wood siding, porch steps, door and window frames and similar wood items should be at least six inches above ground level. Eliminating wood-to-ground contact may require re-grading or pulling soil or mulch back from the foundation, cutting the bottom of siding, or supporting steps or posts on a concrete base. Contrary to popular belief, wood that has been pressure treated is not immune

to termite attack. Termites will enter pressure-treated wood through cut ends and cracks and also build tunnels over the surface.

2. Don't let moisture accumulate near the foundation.

Termites are attracted to moisture and are more likely to "zero in" on a structure if the soil next to the foundation is consistently moist. Water should be diverted away from the foundation with properly functioning gutters, down spouts and splash blocks. Leaking faucets, water pipes and air conditioning units should be repaired, and the ground next to the foundation should be graded (sloped) so that surface water drains away from the building. Homes with poor drainage may need to have tiles or drains installed. Lawn sprinklers and irrigation systems should be adjusted to minimize puddling near the foundation.

3. Reduce humidity in crawl spaces. Most building codes call for 1 square foot of vent opening per 150 square feet of crawlspace area. For crawlspaces equipped with a polyethylene vapor barrier (see below), the total vent area often can be reduced to 1 square foot per 300 to 500 square feet of crawl space area. One vent should be within 3 feet of each exterior corner of the building. Vents should be kept free of leaves, dirt and debris, and should not be obstructed by vegetation. Moisture and humidity in crawl spaces can be further reduced by installing 4-6 ml polyethylene sheeting over about 75 percent of the soil surface. The soil cover will act as a vapor barrier to reduce evaporation from the soil and condensation of moisture on joists and subflooring. Vents and vapor barriers are installed by pest control companies.

4. Do not store wood or paper against the foundation or inside the crawl space. Firewood, lumber, cardboard boxes, newspapers, and other cellulose materials attract termites and provide a convenient source of food. When stacked against the foundation they offer a hidden path of entry into the structure and allow termites to bypass any termiticide soil barrier that is present. Vines, ivy, and other dense plant material touching the house should also be avoided. Where practical, dead stumps and tree roots around and beneath the building should be removed, along with old form boards and grade stakes left in place after the building was constructed.

5. Use mulch sparingly, especially if you already have termites or other conducive conditions. Many people use landscape mulch for its aesthetic and plant health benefits. Excessive or improper usage, however, can contribute to termite problems. Termites are attracted to mulch primarily because of its moisture-retaining properties and the insulation it affords against temperature extremes. The mulch itself is of poor nutritional value to termites

and a non-preferred source of food. Since the moisture retaining properties of mulch are more of an attractant than the wood itself, it makes little difference what type of mulch is used (cypress, pine bark, eucalyptus, etc.). Contrary to popular belief, crushed stone or pea gravel are comparable to wood mulch in terms of attraction, since they also retain moisture in the underlying soil. Where mulch is used, it should be applied sparingly (2-3 inches is usually adequate), and should never be allowed to contact wood siding or framing of doors or windows. There is no truth to the rumor circulated last year on the internet that mulch is likely to spread Formosan termites from New Orleans to Kentucky (*for more on this subject, see KPN 3/6/06*).

6. Consider treatment by a professional pest control firm. Buildings have many natural openings through which termites can enter, most of which are hidden. While the above measures will help make a house less attractive to termites, the best way to prevent infestation is to treat the adjoining soil with a termiticide. There are two general categories of termite treatment, liquids and baits. The purpose of a liquid treatment is to make the ground around the foundation repellent and/or toxic to termites so that they will not infest the structure. While most of the liquid termiticide products are *repellent*, three newer materials, Termidor® (fipronil), Premise® (imidacloprid), and Phantom® (chlorfenapyr) are *non-repellent* to termites foraging in the soil. Consequently, termites tunneling into the treated zone are killed. In Kentucky, these products are proving very reliable in their ability to control termites in the initial attempt. Baits can also be installed to eliminate termites foraging around structures (see newly revised Entfacts 604: *Termite Control: Answers for Homeowners*, and 639: *Termite Baits: A Guide for Homeowners*).

Preventively treating a home for termites is a reasonable investment, especially if the structure has no prior history of treatment. If the building was previously treated by a pest control firm, it's a good idea to maintain the warranty by paying the annual renewal fee. Should termites re-infest the building, (which can happen even if the initial treatment was performed correctly), the company will return and retreat the affected area at no additional charge.

Whether or not a person chooses to have their home treated, they should know the signs of termite infestation:

- Pencil-wide mud foraging tubes on foundation walls, piers, sills, joists, etc.
- Winged “swarmer” termites, or their shed wings, in windowsills and along edges of floors.

- Damaged wood hollowed out along the grain, lined with bits of mud or soil.
- Detecting hidden infestations requires a trained eye. Many pest control firms perform termite inspections free of charge and will alert the homeowner to any conditions they uncover that are conducive to termite attack.

DIAGNOSTIC LAB-HIGHLIGHTS
by Julie Beale and Paul Bachi

Diseases on agronomic crops, fruits and vegetables over the past week have included Rhizoctonia damping off and cold injury on tobacco; timber rot and Pythium root rot on tomato; Alternaria leaf spot on cabbage; bacterial leaf spot on pepper; and fire blight on Asian pear.

We continue to see numerous samples of winter injury / winter drying on broadleaf evergreens. On ornamentals and turf, we have also seen tulip fire (*Botrytis*) on tulip; Pythium root rot on geranium; Phomopsis gall on forsythia; and Pythium blight on bentgrass.

INSECT TRAP COUNTS
UKREC, Princeton KY
Kentucky – Tennessee
March 30-April 6, 2007

<i>Jackson, TN</i>	
Black cutworm.....	0
True Armyworm.....	1
Corn earworm	4
<i>Milan, TN</i>	
Black cutworm.....	0
True Armyworm.....	0
Corn earworm	0
<i>Princeton, KY</i>	
Black cutworm.....	12
True Armyworm.....	28
Corn earworm	3
<i>Lexington, KY</i>	
Black cutworm.....	36
True Armyworm.....	68
Corn earworm	0

This season insect trap counts will be provided for locations in Kentucky and Tennessee.
View trap counts for past seasons and the entire 2007 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/>

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.