**Watch For: Armyworm**

- True armyworm trap captures remain high!
- Tobacco
- Resources for monitoring blue mold in 2006
- Corn
- So, you think you might have wireworm problems
- Forage crops
- Cutting management and leaf diseases of alfalfa
- Apparent aphid damage to orchardgrass

**FRUIT CROPS**

- Grape disease control begins in early spring

**SOYBEAN**

- SCN-resistant soybean varieties may be offering farmers a false sense of security

**LAWN & TURF**

- Ticks in lawns

**HOUSEHOLD**

- Carpenter bees are flying

**Diagnostic Lab-Highlights**

- Insect Trap Counts

More or less level trap counts may also indicate that we have reached the peak moth flight. But we will have to wait another week to see if that is true.

If we have reached peak moth capture, this year’s number (301 moths per trap week) is quite a bit smaller than the peak flight (400 moths per trap week) in 2001. That’s a good thing!

If we assume: that the past two weeks’ counts are about the same (301 vs 271), that these counts represent the peak flight period, and use 11 Apr 06 as the center of this flight period, then we might estimate the peak larval activity period as follows.

Projections forward from 11 Apr through today using this year’s temperatures, and using historic temperatures for dates in the future the peak larval appearance would be about 27 April.

It appears from the model output that temperatures over the last week or so are much warmer than the historic values. This brings the estimate of major worm activity sooner than previously estimated. All those with crops affected by this insect are urged to begin scouting them soon. However, we are expecting cooler temperatures this week.

Remember that with each passing week we are using more temperature information from the current year and less from the historic data base. So, we should be tailoring the calculations for this year with each week’s update. With each week’s data we are also closer (time wise) to insects in the field, so there will be less lead time with
TOBACCO

RESOURCES FOR MONITORING BLUE MOLD IN 2006
by Kenny Seebold

Nothing gets attention like blue mold when it comes to diseases of tobacco, and it won’t be long before blue mold will become a threat to tobacco in Kentucky and the rest of the United States. Hardin County was in the national headlines briefly this past June when the first reported case of blue mold in the United States was confirmed near Cecilia. Fortunately, we lost very little tobacco to the dreaded disease in 2005. The blue mold epidemic – if that’s what you want to call it – was extremely mild compared to previous years thanks to dry conditions throughout most of the growing season. How will blue mold affect the 2006 crop? The truth is we really don’t know for sure. The amount of blue mold that we’ll see in Kentucky this season is highly dependent upon the amount of inoculum (spores) that is introduced from areas south of us or produced in-state if the pathogen, *Peronospora tabacina*, survived the mild winter in a protected environment. Weather during the summer months plays an equally important role in the development of blue mold. A wet and cool summer will likely mean a higher risk to our growers from the disease, while hot and dry conditions may equal another year’s respite. Given the year-to-year unpredictability of blue mold and its potential to cause serious losses, it’s clear why this plague captures our imaginations more than any other disease of tobacco.

Fortunately, there are easy-to-access resources available to help us track the occurrence and movement of blue mold in the tobacco producing regions of the U.S. and to assess the level of risk to tobacco around the country. The Kentucky Blue Mold Warning System is a cooperative effort that involves growers, county agents, and Extension tobacco specialists in Kentucky and other parts of the U.S., as well as the North American Plant Disease Forecast Center (NAPDFC). The status of blue mold in Kentucky and surrounding states is updated weekly and can be found at [www.uky.edu/Agriculture/kpn/kyblue/kyblue.htm](http://www.uky.edu/Agriculture/kpn/kyblue/kyblue.htm) and in the Kentucky Pest News. Breaking information is made available on the Kentucky Blue Mold Warning System web page and through a mailing list, the KY Blue Mold Alert. Subscribe to the KY Blue Mold Alert mailing list by sending a message to: listserv@lsv.uky.edu. The message body must contain, verbatim, the line *subscribe ky-bluem-alert*, followed by a blank line. You will receive by return mail a message requiring confirmation of your subscription.

The NAPDFC, located at North Carolina State University, documents the presence of blue mold in locations where inoculum is produced (on cultivated or wild tobacco) that may threaten cultivated tobacco in the U.S. These locations include Cuba, Mexico, and southern Texas. As the season progresses, outbreaks of blue mold across the country are confirmed by local coordinators from each of the tobacco producing states and forwarded to the NAPDFC. This information is used to track the spread of blue mold and is also used, in conjunction with weather models, to predict the future movement of the disease. Local weather forecasts in areas predicted to be in the path of dispersed inoculum are then combined with predicted movement of inoculum to generate a forecast that categorizes risk of infection for a 48-hour period in the threatened region. Status and forecast information are summarized on the NAPDFC Blue Mold page ([http://www.ces.ncsu.edu/depts/pp/bluemold/](http://www.ces.ncsu.edu/depts/pp/bluemold/)), which is updated on Monday, Wednesday, and Friday from March until the end of August. It is this information that forms the backbone of the Kentucky Blue Mold Warning System, created 27 years ago by Dr. William Nesmith.

The Kentucky Blue Mold Warning System relies heavily, as I mentioned earlier, on input at the local level. In fact, our success depends on it. We can do a great job of tracking blue mold outside the Commonwealth, but need growers and agents to let us know when and where blue mold crops up in Kentucky. Growers should report outbreaks of blue mold as quickly as possible to their local county extension agent so that he or she can pass this information to U.K. extension specialists. We use this information to update the KY Blue Mold Warning System and to develop area-specific advisories. The faster we learn about the occurrence of blue mold, the quicker we can issue an alert, and the sooner our growers can take the necessary steps to protect their crops. Who knows – blue mold may not trouble the region in 2006, but let’s be prepared to spread the word should it appear.

Blue Mold Status as of 14 April 2006. Active blue mold has been confirmed in western Cuba, and in western Mexico. The threat to U.S. production areas at this time is low. No active blue mold has been reported in the U.S.

CORN

SO, YOU THINK YOU MIGHT HAVE WIREWORM PROBLEMS
by Ric Bessin

The past few years, wireworms have become an increasing occurrence on some central and western Kentucky farms. Wireworms will attack a wide variety of plant
seeds and small seedlings, but the most of the problems we experience is with field corn. Wireworm can keep seeds from germinating or kill the developing seedling before or after it emerges from the soil. The result is stand loss and less uniformity in plant vigor which results in less yield potential for the field. Stand loss due to wireworm damage can occur anytime from seeding through the V3 stage.

While problems with wireworms are on the increase, at least reports of wireworm problems are increasing, it is important to note that there are many other causes of stand reduction. Often it is one or more of these other causes that is resulting in the stand loss. Other causes of stand reduction include planter problems, poor seed viability, damping of or other seedling diseases, and bird/wildlife damage. If you suspect that losses may be due to wireworms, shortly after full seedling emergence should have occurred you will need to dig in the row skips to recover and examine the seed. When digging seedlings or looking for seed, watch for wireworms as well. I’ve noticed two types of characteristic wireworm damage that occurs before the seedling emerges. The first is to the seedling itself, you should look for one or more holes in the seed and the seed may be tunneled or completely hollowed out. The second type of damage is to the developing coleoptile. Wireworms can damage the growing tip of the coleoptile which will prevent the seedling from emerging.

Another type of damage caused by wireworms is that of deadhearting of seedlings. A deadheart is where the youngest leaves in the developing whorl wilt and die. If the seedling is carefully dug and examined, there will be a ragged hole in the side of the crown. The damage occurs where the wireworm chews into the crown and kill the growing point of the plant. Some plants may begin to develop tillers when the growing point is killed, others will die. Plants that develop a new tiller do not compete well with other plants and contribute little if anything to yield. Unlike with soybeans where undamaged plants can better compensate for lost plants, corn can be greatly affected by stand loss.

The most common wireworm I’ve seen in these problems wireworm fields is *Melanotus depressus*. This is a cylindrical, caramel-colored wireworm that doesn’t have the pairs of noticeable spots on many of the segments.

Wireworm damage is more common with early planted fields when soil temperatures promote slow germination and seedling growth. Deep planting of the seed and poor seedling vigor (seed genetics) will also keep plants vulnerable to wireworms for a longer period. Once stand loss due to wireworms becomes noticeable, there are no effective rescue treatments. The decision is whether to replant or not. Due to the added expense of new seed, fuel, additional insecticide, potential yield reduction with later planting dates, and the ability of the surviving plants to compensate some for the lost plants, it often takes stand losses of 1/3 or more to justify replanting.

FORAGE CROPS

**CUTTING MANAGEMENT AND LEAF DIS-EASES OF ALFALFA**

by Paul Vincelli

Invasion of alfalfa leaves by disease-causing microorganisms (*pathogens*) can produce dead spots and blight. Leaves with a great number of spots are less effective at photosynthesis, which can result in reduced plant growth. Also, leaves with spot symptoms often drop to the ground, resulting in reduced forage yield and quality. Many of the leaf-infecting fungi and bacteria also infect stems of alfalfa. Often, stem infections prevent water flow to the rest of the shoot, causing sudden wilting and desiccation. Lepto leaf spot, spring black stem, *Stemphylium* leaf spot, and summer black stem are common alfalfa diseases that cause spotting of leaves. Anthracnose, *Rhizoctonia* stem canker, *Sclerotinia* crown and stem rot, and spring black stem cause wilting and blighting of shoots.

All alfalfa varieties are more or less susceptible to all of these foliar diseases. Probably the only significant management practice to recommend for leaf-blighting diseases is to take cuttings in a timely manner. Scout fields for premature defoliation for leaf spotting, and be prepared to harvest before much defoliation occurs. If significant disease activity is present, cut sometime between early bud and first flower. Cutting the hay accomplishes several things: it captures the yield from infected leaves before they defoliate; it reduces the buildup of infectious residue on the ground, protecting future cuttings; and it exposes the crowns to the sun and wind, reducing the risk of crown infections from spring black stem.

Cut alfalfa when it is ready. Don’t wait for a forecast of 3–4 days of sunny, dry conditions. Advancing maturity causes substantial loss in forage quality. Thus, waiting for dry weather can cost as much quality loss as can rain damage.

**APPARENT APHID DAMAGE TO OR-CHARDGRASS**

by Lee Townsend

Several orchardgrass plantings have moderate to heavy aphid infestations that may be the cause of some exten-

KPN—April 17, 2006 3
GRAPES have been sent for identification. Please let me know if what might be caused by greenbug feeding. Specimens of living grass have colonies of light green aphids. There are some extensive brown spots with dead grass and the susceptible stand loss. The Adair and Pulaski county fields show oval yellow lesions on infested leaves that are similar to what might be caused by greenbug feeding. Specimens have been sent for identification. Please let me know if you see similar events.

FRUIT CROPS

GRAPE DISEASE CONTROL BEGINS IN EARLY SPRING
by John Hartman

Grape diseases are often the limiting factor in successful production of grapes for fresh market use and for wine making. Growers should recognize this general rule: If diseases are controlled well early in the season, there is less need to manage them later in the season. The corollary is that if grape diseases are not well controlled early, the rest of the season becomes a constant battle against disease. Grape buds have broken and new disease-susceptible growth is emerging from the vines.

Disease management in spring between bud break and bloom is critical to growers aspiring to produce a good crop. There are several diseases that are active now even though the symptoms developing from current infections may not be seen for several weeks or months.

• Black rot - *Guignardia bidwellii.* This is the most common foliar and fruit disease of grape in Kentucky.
• Powdery mildew - *Uncinula necator.* Most grapes are susceptible to powdery mildew.
• Downy mildew - *Plasmopara viticola.* Downy mildew is favored by cool, moist weather.
• Cane and leaf spot - *Phomopsis viticola.*

Most years, wet periods in late April and early May are very favorable for black rot and *Phomopsis* cane and leaf spot and these diseases can become devastating in some vineyards. Downy mildew and powdery mildew can also begin to develop at this time. Growers should concentrate on managing these diseases. Now that grape buds have broken, infections will occur just about any time there is more rain. The period from immediate pre-bloom to three or four weeks after bloom is the most critical period to control fruit infections by black rot, powdery mildew, and downy mildew. Fruits, but not leaves and fruit rachis tissues generally become resistant to these diseases four weeks after bloom. Management requires an integrated approach involving cultural practices and chemical controls.

Cultural practices to reduce diseases. Keep the foliage dry and less prone to disease by use of intelligent field site selection, training systems that ventilate the leaves and clusters, judicious nitrogen use, and appropriate irrigation practices. Plant disease-free plants and choose cultivars that resist diseases. Although most grape varieties are susceptible to black rot, a few such as Cascade, Cayuga White, Chancellor, Cheilois, Cynthia/Chantor, DeChaunac, Elvira, Ives, Vidal 256, and Vignoles are less susceptible. Use good sanitation by removing and destroying diseased and dead wood, and mummies from the vine and on the ground.

Fungicides for disease control. More complete information about varietal susceptibility and timing and materials for grape disease control can be found in ID-94 Kentucky Commercial Small Fruit & Grape Spray Guide 2006, available at County Extension Offices.

Chemical controls need to be integrated because although black rot is usually most important, there are other fungal diseases that need managing. For all four of the early-season diseases, growers can choose protectant fungicides such as mancozeb (Dithane M-45, Manzate 200, Penkozeb), Captan, or Ziram and mix one of these choices with Bayleton, Elite, Endura, JMS Stylet Oil, Nova, Quintec, Potassium Salts, Procure, or Rubigan. Strobilurin fungicides such as Abound, Flint or Sovran can also be used in combination with Endura, Quintec, Potassium Salts, or sulfur. Or, growers may choose Pristine, a combination product, which can be used alone.

Some notes and precautions relating to fungicide use:

• Mancozeb is more effective against black rot than captan or ziram.
• Do not apply Pristine or Flint to Concord or other American type grape as injury may occur.
• Use Sulfur with caution. Do not use Captan or sulfur within 2 weeks of applying JMS Stylet oil and vice versa.
• Additional help with downy mildew, if needed, can be obtained by use of Ridomil Gold MZ, Ridomil Gold Copper, or one of the phosphorous acid-related fungicides such as ProPhyt, Phostrol, Agri-Fos, or Aliette.
• Abound fungicide is phytotoxic to certain apple varieties and should neither be mixed in the same sprayer used to spray apples nor allowed to drift into a nearby orchard.
• Potassium salts for powdery mildew control include Nutrol, Kaligreen, and Armicarb.
• Organic growers may consider using sulfur, stylet oil, or potassium salts for powdery mildew, and fixed copper or copper and lime (i.e., Bordeaux mixture) compounds for the other diseases. Copper fungicides, good against downy mildew, but weak against black rot and cane and leaf spot, also have the potential to damage vines.
especially in cool weather. Thus, caution is needed to be sure that copper is not used excessively and that copper and lime are not applied to fruit destined for fresh market.

• Fungicide resistance is a concern for some grape fungicides. Follow label instructions for resistance management.

SOYBEAN

SCN-RESISTANT SOYBEAN VARIETIES MAY BE OFFERING FARMERS A FALSE SENSE OF SECURITY
by Don Hershman

Soybean Cyst Nematode (SCN) is the most serious disease affecting soybean in the United States. Kentucky plants a very high percentage of round-up resistant soybean varieties, and the vast majority of these varieties are also resistant to SCN. Therefore, most Kentucky soybean producers are under the impression that SCN is no longer a production threat. This may or may not be true.

A recent survey conducted by scientists at the University of Missouri indicated:

1. 62% of Missouri farmers do not feel that SCN is reducing yields on their farm.

2. 61% of 122 soil samples collected from 47 counties were above economic threshold, despite the fact that predominately SCN-resistant varieties are being grown.

3. SCN in 17 of 20 samples tested (85%) were able to successfully reproduce on PI88788, the main source of SCN-resistance deployed in Missouri (and Kentucky).

4. Survey results suggest that widespread use of PI88788-based SCN-resistant soybean lines throughout Missouri has probably selected for nematode populations that can reproduce on (and damage) most available SCN-resistant soybean varieties.

5. The authors of the survey concluded that Missouri soybean producers have a false sense of security thinking that soybean cyst nematode is no longer damaging yields in Missouri. It appears that SCN is continuing to do much damage to soybean in Missouri.

The above survey results are quite troubling considering that most Kentucky soybean producers, like producers in Missouri, are under the impression that SCN is no longer a concern due to widespread use of SCN-resistant varie-

LAWN & TURF

TICKS IN LAWNS
by Lee Townsend

Lone star ticks are active with large numbers of the small 6-legged larval stage being found now. Ticks prefer overgrown, brushy areas, especially where small mammals are active. Clearing and regular mowing of these areas allows penetration of sunlight and breezes and removes hiding places for small animals. This is an effective way to provide long term tick reduction.

Ticks are more common along the margins of woods or scrub growth but they can be introduced into lawns by pets or wild animals, particularly field mice and deer. Below are examples of some lawn and garden insecticides that are labeled for tick control in lawns. Other products containing the active ingredients in the column on the left may be used, as well. Follow the label direction for mixing and applying the diluted spray.

Bifenthrin
- Ortho Bug B Gon Lawn & Garden Insect Killer
Cyfluthrin
- Bayer Multi-Insect Killer Concentrate
  b-cyfluthrin
- Bayer Carpenter Ant & Termite Killer
lambda-cyhalothrin
  - Spectracide Flea & Tick Killer
  - Spectracide Triazicide Insect Killer Concentrate
Permethrin
  - Dragon Lawn & Garden Protector
  - Bonide Bug Beater Yard & Garden Concentrate
Carbaryl
  - Sevin Liquid Insecticide

HOUSEHOLD

CARPENTER BEES ARE FLYING
by Mike Potter

Large, black bees have begun hovering around eaves, decks, and wood siding of clients’ homes and outbuildings. These are probably carpenter bees searching for mates and nesting sites. Carpenter bees cause cosmetic and structural damage to wood. They can also be intimi-
dating and have the potential to inflict painful stings.

The Problem- Carpenter bees are similar in appearance to bumblebees, but have different nesting habits. Bumblebees generally nest in the ground, whereas carpenter bees tunnel into wood to lay their eggs. Bare, unpainted, weathered softwoods are preferred especially redwood, cedar, cypress and pine. Painted or pressure-treated wood is much less susceptible to attack. Common nesting sites include eaves, fascia boards, siding, wooden shake roofs, decks and outdoor furniture.

Carpenter bees overwinter as adults in old nest tunnels. After mating, the fertilized females excavate galleries in wood, laying their eggs within a series of small cells. The cells are provisioned with a ball of pollen on which the larvae feed, emerging as adults in late summer. The entrance hole and tunnels are perfectly round and about the diameter of your finger. Coarse sawdust, the color of fresh cut wood, is often seen beneath the entry hole, and burrowing sounds may be heard within the wood. Female carpenter bees may excavate new tunnels or enlarge and reuse old ones. Serious damage can result when the same piece of wood is worked year after year.

Males are often aggressive, hovering in front of people who are around the nests. The males are harmless, however, since they lack stingers. Female carpenter bees can inflict a painful sting, but seldom will unless handled or molested.

The Solution- The best time to control carpenter bees is before the tunnels are fully excavated. For homeowners, liquid sprays of Sevin or a pyrethroid (e.g., Bayer Advanced™ Home/Lawn & Garden Insect Killer, Spectracide® Triazicide/Bug Stop, Ortho® Home Defense System/Termite & Carpenter Ant Killer) can be applied directly into nest openings, or broadcast sprayed as a deterrent onto wood surfaces attracting large numbers of bees. The broadcast spray approach is often warranted when carpenter bees are riddling siding on a barn, wood shake roofs, decking or similar large expanses of wood. Broadcast treatment is best accomplished with a pump up or hose end sprayer, targeting wood surfaces that are most favored by the bees (fascia boards, joist ends of redwood decks, etc.). Residual effectiveness of such applications is only about 1-3 weeks, so the treatment may need to be repeated. Individual holes which are already present also can be treated with a wasp and hornet aerosol spray or insecticide dust (e.g., Sevin, DeltaDust), directed into the nest opening. Although carpenter bees are less aggressive than wasps, female bees provisioning their nests will sting. Consider treating at dusk or while wearing protective clothing.

Leave the holes open for a few days after treatment to allow the bees to contact and distribute the insecticide throughout the nest tunnel. Then plug the entrance hole with a piece of wooden dowel coated with carpenter’s glue, wood putty, or other suitable sealant. This will protect against future bees using the old tunnels, as well as moisture intrusion and wood decay.

Carpenter bees normally will not tunnel into painted wood. Therefore a more permanent solution is to paint unfinished wood surfaces, especially those with a history of being attacked. Wood stains and preservatives are less reliable than painting, but may provide some degree of repellence versus bare wood. To further discourage nesting, garages and outbuildings should be kept closed when carpenter bees are actively searching for nesting sites. The annoying flying and nesting habit usually subsides by the end of May.

DIAGNOSTIC LAB-HIGHLIGHTS by Julie Beale and Paul Bachi

Samples received in the PDDL this past week included Rhizoctonia damping off on tobacco; Pythium root rot on tomato transplants; Botrytis blight on greenhouse lettuce; Pythium root rot and high soluble salts on calibrachoa; thrips infestation on impatiens; pine wilt nematode on Scots pine; and yellow patch on bluegrass.

INSECT TRAP COUNTS

UKREC, Princeton KY
March 31-April 7, 2006

Black cutworm................................................................. 2
True Armyworm................................................................. 301
European Corn Borer........................................................... 0
Corn Earworm................................................................. 3

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

6 KPN—April 17, 2006
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.