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### TOBACCO

**CURRENT BLUE MOLD STATUS - August 25, 2003**

by William Nesmith

The overall level of blue mold activity has declined sharply during the past week due to increased maturity of the crop and drier weather systems. However, strong activity continues in some fields of younger crops where prolonged moisture events were present during the past week. The much drier weather system that became established on August 23 and 24 should markedly reduce the potential for economically damaging levels of new blue mold development. The longer the dry pattern and the higher the temperatures, the greater will be the reduction in blue mold potential. Fields with closed canopy that received significant new moisture or fog, with blue mold well established on ground suckers or other very young tissues, could still experience strong activity. Infections that occurred last week should quickly develop necrotic lesions under the drier conditions, with a sharp decline in spore production. Any new infections (4 to 7 days post infection) should appear as yellowish spots with a blue to gray (not brown) spore mass.

For those still in need of information on blue mold control and/or management of crops with blue mold, please see the status report of August 18.

### CORN

**SCOUT CORN TO IDENTIFY CORN BORER PROBLEM FIELDS**

by Ric Bessin

A sizable portion of the 2003 corn crop was planted late because of the constant spring rains. Not only late-May corn, but June corn and some planted in early July. But that late planted corn will be late harvested corn, some not maturing until late September and through October. This late planted corn will remain vulnerable to corn borer attack, both European and southwestern, longer into the fall than early planted corn.

This damage caused by corn borers is in the form of harvest losses. This comes in the form of broken stalks, ear drop, and stalk girdling. Southwestern corn borer causes the dramatic stalk girdling. They begin to girdle the base of stalks in late August and continue through September. Corn that is harvested by early September usually has minimal stalk girdling, even when infested. However, late-planted fields that are harvested late are at much greater risk.

Fortunately, many producers used Bt corn with this late-planted corn, knowing that corn borers were going to be a much more serious problem in the fall. However, in some areas, growers may not be able to use Bt hybrids with their...
markets. These are the fields that are at great risk to harvest losses from borer attack. Generally, the Bt corn will be able to stand in the field longer and with few corn borer losses than non Bt corn.

Corn producers need to evaluate their fields during the next few weeks to identify those fields that are heavily infested. Those fields with the worst corn borer infestations should be scheduled for the earliest practical harvest rather than waiting for the grain to dry to optimal levels. It may be more economical to dry the corn in a drier once the grain is mature. Those fields with low corn borer infestations should be able to resist lodging and harvest losses further into the fall.

FORAGE CROPS

ROTS OF FEEDER ROOTS MAY BE ONE FACTOR CAUSING STUNTING OF ALFALFA by Paul Vincelli

Some alfalfa fields recently have been exhibiting slow growth. Although there are many possible causes for this condition, one often-overlooked cause is rot of feeder roots. Diseases that cause rotting of the crown and/or taproot—such as Phytophthora or anthracnose—are usually readily recognized by cutting into the affected tissue. However, rots of feeder roots are more difficult to detect.

Feeder roots are the fine roots that actually are the ones that absorb water and nutrients from the soil. Therefore, when these are rotted, the plants can experience deficiencies of water and nutrients, resulting in stunting and color changes such as yellowing or reddening. There are several fungal-like organisms known to attack and rot feeder roots of established alfalfa. Three of particular concern are:

- *Aphanomyces euteiches*, the cause of the very common seedling disease, Aphanomyces root rot.
- *Pythium* species, extremely common soilborne organisms that can causing damping off of alfalfa seedlings.
- *Phytophthora medicaginis*, the cause of the very destructive root-rot disease, Phytophthora root rot. This pathogen is present in about 10-20% of Kentucky alfalfa soils, but is very destructive in susceptible varieties when it occurs. Although it attacks feeder roots, it also attacks tap roots.

The wet weather many areas experienced through spring and early summer was very conducive to infection by these organisms. They are members of a group called “water molds”, because they thrive in saturated soil conditions.

Rots of alfalfa crowns and taproots cause notable, and even dramatic, loss of stand. Feeder root rots are more subtle, producing slower growth and poor vigor. With the except of *Phytophthora*, which can move from feeder roots to taproots, these are not lethal diseases, although they can contribute to stand loss in winter by reducing late-summer plant vigor.

Management

Site selection. Alfalfa does best on deep, well-drained soils. Unfortunately, some of the soils where alfalfa is grown in Kentucky have poor internal drainage. Even sites with good surface drainage can experience extended periods of soil saturation if internal drainage is poor. Once the soil horizon in these soils becomes saturated, they hold water for long periods, allowing these “water molds” to become active. Thus, where a choice exists, choose sites that are well-drained for sowing alfalfa.

Variety selection. Alfalfa varieties with resistance to Phytophthora root rot are a must for Kentucky, and for all spring seedings, always use Aphanomyces root rot resistant varieties. Use resistance ratings of no less than R or HR to each disease. Resistance to these diseases should help reduce the impact of these pathogens on feeder roots.

When feasible, avoid traffic when wet. Driving heavy equipment when the soil is wet results in surface compaction. This leads to poorer internal drainage, favoring feeder root rots. Again, sometimes circumstances require driving on the field under less-than-ideal soil conditions, but if possible, avoid compressing the soil when wet.

BLISTER BEETLES IN HAY by Lee Townsend

Blister beetles are a possibility in later cuttings of hay but not a chronic problem in Kentucky. There are some management practices to reduce the potential for their presence in hay but there is no way to inspect hay and assure a buyer that it is beetle-free.

The best way to deal with blister beetles is through management practices that will keep fields from being attractive. If practical use the first cutting hay for horse feed since the beetles are not active then.

The major step is to cut on a schedule that keeps alfalfa and weeds from producing the flowers that attract beetles and keep them in the field. Cut before an advanced bloom stage. This means hay with high quality and protein content and keeps attraction of beetles low. Practice good weed management to keep other flowering plants to a minimum.

Other practices are necessary if flowers and / or beetles are abundant. The worst thing that can be done is to crimp or crush hay if beetles are present. Crushed beetles remain in the hay and can poison animals. DO NOT use a hay
conditioner when harvesting blister beetle infested alfalfa. Fields with flowered plants can be checked for blister beetles before harvest by using a sweep net as you would to sample for potato leafhoppers. This is not foolproof because large numbers of beetles can be concentrated in very small areas of a field. Collection of 100 sweeps for the field, as would be done for leafhoppers, is not sufficient to be confident that the beetles are not present unless flowering is limited to small areas.

Sickle bar mowers and some of the more modern circular or rotary mowers lay the hay down but do not crush it. Blister beetles have a behavioral characteristic that may be used against them. When plants are disturbed, blister beetles play "possum" and fall to the ground. As the hay dries and cures, the beetles will leave to seek food and moisture.

**Horse Owners**

Horseowners can reduce the risk of feeding blister beetles to their animals by implementing the following precautions:

If you do not produce your own hay or need more, buy from a local source and work with that producer to insure that you know what kind of management the hay has had. Develop a good working relationship with your hay producer.

Set aside or buy hay from the first cutting since it much less likely to have beetles in it. In Kentucky these beetles are active from July through early fall.

**GRAIN SORGHUM**

**WATCH FOR SORGHUM WEBWORM ESPECIALLY IN LATE MATURING SORGHUM**

by Doug Johnson

Sorghum webworms prefer cool, wet weather during late summer and early fall. As with all the major pests of grain sorghum, it is the late planted fields that have the potential to suffer the most damage.

The adult webworm is a small (1/2 inch) white moth which lays eggs at night on hosts such as sorghum, Sudan grass, Johnsongrass, broom corn and rye. These eggs hatch in about five days producing green, bristly larvae. Of the three head feeding caterpillars on sorghum, corn earworm, sorghum webworm, and fall armyworm, the sorghum webworm has by far the most hairs and spines.

Sorghum webworms complete their development (1/2 inch) in 15 days. About four weeks are required to complete a life cycle. The generation which appears in September is the most damaging to late planted sorghum.

Generally, webworms do most of their feeding while the grain is in the milk to soft dough stage. Like the corn earworm, they prefer varieties that produce compact heads. Webworms feed on the developing grain for the most part, partially hollowing out and consuming many grains. Small, white fecal droppings indicate fairly heavy infestations of sorghum webworms. These droppings also increase the likelihood of molds and fungi.

Examine at least 20 heads starting when the plants are in bloom until soft dough stage. Shake each head into a white cloth or plastic bag. Count the number of worms.

**Economic Threshold**

Average of 2 or more small worms per head. If insecticidal control is necessary see ENT-24, Insecticide Recommendations for Grain Sorghum(MILO) available from your County Extension Agent, or on line at: [www.uky.edu/Agriculture/PAT/recs/rechome.htm](http://www.uky.edu/Agriculture/PAT/recs/rechome.htm)

**SOYBEAN**

**SOYBEAN SUDDEN DEATH SYNDROME**

by Don Hershman

Soybean sudden death syndrome is now beginning to show up in some fields in central and west Kentucky. Symptom expression is later than normal, probably due to the late planting of many soybean fields this spring/summer. I have not seen any serious instances of SDS as of yet, so there is no reason to get alarmed. In fact, most of what I have seen is very minor at this time. However, I would recommend you look at your fields over the next few weeks to see what, if anything, is going on. SDS is often a sign that soybean cyst nematode is also a problem in the field. Thus, if you see any significant amounts of SDS in any of your fields, it would also be a good idea to check for nematode levels after crop harvest.

**IT’S LATE, IT’S HOT, AND IT’S A BAD TIME FOR SOYBEAN INSECTS!!**

by Doug Johnson

It is the time of year that we look forward to harvest and the end of the production season. However, for Kentucky’s soybean producers, especially those planting late and double crop beans, the story is not yet told. Keep your eyes open for these pests!!

**Soybean Aphid**

We have been watching this insect in Kentucky for the past three years. Usually, we do find some by the end of the year but never very many. That may be the case again for 2003 but you can’t be too careful.

Soybean aphids have been found in several Kentucky counties. Generally, they are still being found in small numbers. However, there are a few fields that have plants infested with “100’s” of aphids. In most cases this is still
very low but research in the upper Midwest has resulted in a lowering of the threshold level needed for treatment. In the past we have indicated that the number of aphids per plant that warrant control would be about 1,000. In Minnesota, Michigan, and Wisconsin that indicator level has been lowered to about 250-300 per plant. For example in Minnesota, the recommendation (in part) is “…We are still using 250 aphids/plant on more than 80% of the plants as a threshold. This is assumed to be an aphid population that is below the level where unacceptable yield loss occurs but high enough that a high probability of reaching yield-damaging levels exists. Remember that aphids can double populations every two days under ideal conditions …”.

These levels are not exact. In Wisconsin “…Wait to treat until aphids are abundant on the upper trifoliate leaves, petioles and stems (i.e. several hundred aphids per plant) but before the plants show noticeable signs of damage …”.

All the states doing major soybean aphid research call for plants to be treated in the early reproductive stages (R2-R3), when the plants are under water stress. Also, treatment would be indicated if there is an absence of the aphid killing fungus and lady beetles, and there are few winged aphids. The presence of these factors indicate the aphid population is about to decrease. The watch words are “Keep your eyes open and scout those beans.”

Green Stink Bug
Unlike soybean aphid, green stink bug is here and it is active. As with all the pests listed in this article green stink bug is most important in late planted beans. Additionally, because they feed only on the pods, and they are not often seen, the numbers needed to indicate a control is necessary are very low. You must go out into the field to determine if this pest is present in economic numbers.

Adults are ½ inch long, green insects with sucking mouthparts. The body is shield shaped. Nymphs are wingless and quite variable in color. However, they are generally similar in appearance to adults.

Stink bugs can be sampled with both sweep net and shake cloth. With our move to solid seeded beans, most people will want to use a sweep net. In the field take 50 sweeps at each sample location. If on average, you have 25 stink bugs in 50 sweeps you have a problem.

Soybean podworm (aka Corn earworm)
This may be the most dangerous insect pest in soybeans. They generally feed only on the pods and thus are often not noticed until it is too late. Additionally, because they feed on the pods it only takes about 2 worms per row-foot (30” rows) to indicate the need for an insecticide treatment. As corn begins to dry up, it becomes a less desirable host, and moths will begin moving to soybeans to lay their eggs.

Young podworm larvae are very small and grow to 1-1/2 inches in length when full grown. They are usually tan to pale green in color with several dark stripes down the back. Color may vary greatly with some appearing almost black.

The soybean podworm feeds mainly on pods but may also feed on leaves, stems, and flowers. Larvae will eat the pod wall and consume the seed. Full season and / or narrow row spacing soybeans fields form a complete canopy sooner, so they are less likely to have a problem. Delayed maturity may also increase the risks of late-season damage. More severe damage tends to be present when large larvae are present on plants with fairly mature pods. This is because the larvae will now feed on the beans inside the pods rather than foliage.

Sampling for the soybean podworm in wide rows should be made using shake cloth. At each sample site, using a two foot cloth, bend the plants over the cloth and shake them vigorously. Note the number of larvae in a four-foot sample area at each site. The number of sites you need to examine in a field is based on the size of the field. The economic threshold for soybean podworm is two worms (caterpillars) per row foot.

In narrow rows the process is more difficult. Because the canopy is so tight it is almost impossible to get into the field to sample. One must make the best educated guess possible based on pod damage and the presence of worms in areas which can be sampled. Remember you have far more plants per acre in narrow row beans.

Good control of this insect is possible. Its main danger is that most people do not look for podworm damage. Remember you will NOT necessary see any leaf feeding. You must examine the pods.

You can view color pictures of these soybean insects and their damage to soybean at:  
www.uky.edu/Agriculture/IPM/scoutinfo/scout.htm If insecticidal control is warranted, recommendations can be found in ENT-13 or on our web site at:  
www.uky.edu/Agriculture/PAT/recs/rechome.htm

WHEAT

WHEAT SEED QUALITY CONCERNS
by Don Hershman

Significant levels of Fusarium Head Blight (FHB) this past spring have apparently resulted in significant seed quality concerns for planting this fall. Recent records given to me by Cindy Finneseth, Seed Testing Coordinator, University of Kentucky Seed Testing Laboratory, indicate that almost 80% of the samples received by the laboratory since harvest were substandard for germination (i.e., > 85% germination).
The range of samples submitted is shown below:

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<tr>
<th>Germination Range</th>
<th>Percent of Samples Received</th>
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<tbody>
<tr>
<td>&gt;95</td>
<td>1.8</td>
</tr>
<tr>
<td>90-94</td>
<td>7.8</td>
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<tr>
<td>85-89</td>
<td>9.0</td>
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<tr>
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<td>70-79</td>
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<td>60-69</td>
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<tr>
<td>50-59</td>
<td>8.4</td>
</tr>
<tr>
<td>&lt;50</td>
<td>9.0</td>
</tr>
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As can be seen from the above table, the majority of the seed samples received have a standard germination of 79% or less. Almost 43% have a standard germination of 69% or less. Almost 20% had germs below 60%. One seed lot came in that had a standard germination of only 29%! According my industry sources, much of the low germination wheat seed is fairly good looking and has a high test weight; so, apparently, looks can be deceiving. In fact, I have seen this scenario played out before. When this happens, environmental conditions are not conducive for FHB symptom development in early grain development, but late-season activity by the causal fungi occurs and results in high levels of seed infection and DON (vomitoxin). Of course, there were plenty of fields that did have high levels of FHB symptom expression.

I have not heard any major concerns from commercial seed companies regarding availability of high germination seed for planting this fall. They, of course, have the option of using seed grown in areas not significantly impacted by FHB. However, many wheat producers, in an attempt to reduce production cost, plan on planting saved seed on their farms this fall.

For the record, I recommend planting certified seed when possible. Certified seed must meet minimum germination (85%) and purity standards, and this take much of the guesswork out of the seed aspect of wheat production. Certified seed is also usually treated with a seed treatment fungicide. In some cases, economic conditions may force a producer to plant saved seed. In those instances, farmers can run into serious problems if they fail to consider the quality issue.

The good news in all of this is that most seed lots are responding well to seed treatment fungicides. For example, 50 samples with a substandard germination were split, with half being treated with Raxil-Thiram and half left non-treated. Of these, 30 were brought up to 85% germination or higher. Germination, following treatment, were commonly increased 20-40%; the seed lot I mentioned earlier that came in at 29% ended up with a germination of 85% following treatment. That is an increase of an amazing 56%! Keep in mind that while 30 of 50 samples were brought up to acceptable germination standards by treatment with Raxil-Thiram, there were 20 seed lots that could not be brought up to 85% germination. Most were close, but a few seed lots showed little response when treated. There are a couple possible reasons for this. One was that there was a lot of dead seed (or almost dead) seed. No amount of seed treatment would bring these seed back to life. Other possibilities would be mechanical damage and/or reduced seed vigor.

There are various fungicides that will do a very good job in managing Fusarium in seed. Specifically, those containing difenconazole (Dividend formulations), tebuconazole (Raxil formulations), and thiabendazole (various products) tend to perform the best. Products containing carboxin (Vitavax formulations) and fludioxonil (Maxim 4FS) will also provide some relief, but not as much as the previously mentioned materials. When possible, it is usually best to have the seed treatments applied by commercially. Professional applicators have the proper equipment and experience to get excellent coverage of seed. This is essential to getting an acceptable response to fungicides. Some products, like those containing thiabendazole, must be applied commercially. Others may be applied on the farm. Dividend XL RTA, for example, was developed specifically for on-farm treatment. Check with your ag supply dealer to determine your treatment options. Be sure to CHECK THE PESTICIDE LABEL to determine exactly what you may and may not do, and exactly how to proceed with on-farm treatment. If attempting an on-farm application, it is essential that you achieve excellent coverage of fungicide on the seed. I cannot stress this enough. I doubt if hopper-box treatments will ever provide the sort of coverage needed.

I have heard that some producers have a simple plan to deal with possible germination issues. That is, to increase seeding rates to compensate for less than desirable germination. According to UK Extension grains specialist, Dr. Jim Herbek, that tactic can work under a limited set of circumstances, but it can also backfire. If germ needs to be brought up a few percentage points, this should be no problem. However, if a seed lot has a significant germination problem, the tactic will begin to backfire. Dr. Herbek told me that at unusually high seeding rates, you begin to experience all sorts of mechanical/logistical issues. For example, some planters will not be able to deliver as much seed, consistently, as is needed at very high seedling rates. Plus, since good and bad seed will be mixed at rather high percentages, there is the likelihood of very uneven stands developing due to groups of predominantly dead seed being planted here, and groups of predominantly good seed being planted there. Thin areas will be...well, thin, and thick areas may lodge and have a variety of other problems. The worse case scenario would be to dump a lot of seed in the ground without having any idea of the seed lot’s germination. This kind of “shot in the dark” approach
is almost certainly doomed to failure. Hopefully, few farmers will consider that option if they are interested in anything but cover-crop wheat.

LAWN & TURF

RUSTS ON COOL-SEASON GRASSES
by Paul Vincelli

Leaf rusts have been active for several months on perennial ryegrass and Kentucky bluegrass. Clearly, there is enough inoculum around for major problems this autumn, should conditions favor these diseases. They are most damaging on turfgrass that is growing slowly, as from a mild deficiency of water or nitrogen.

If the disease is a significant concern, a light application (½ lb quick-release N/1000 sq ft) now will help the turf outgrow some of the disease activity, as will irrigation as needed. After Labor Day, one can begin a regular fall fertilization program with a 1 lb/1000 sq ft application of quick-release N.

Cultural practices alone will provide adequate control for most swards. For high-maintenance swards on golf courses, products containing the following fungicides are most effective: azoxystrobin (Heritage), propiconazole (Banner MAXX, etc.), triadimefon (Bayleton, etc.), and mancozeb (Fore, etc.).

SHADE TREES & ORNAMENTALS

HAWTHORN BLIGHT
by John Hartman

Hawthorn trees were observed earlier this summer with high levels of leaf spot disease in the field and on specimens sent to the laboratory. Thus, it shouldn’t be surprising that many of these trees are now being defoliated prematurely due to the leaf blight. Hawthorn trees in Kentucky can suffer annual defoliation by leaf spot/blight disease. Leaf blight is caused by the fungus _Diplocarpon mespili_, (formerly known as _Fabraea_) which has an interesting imperfect stage called _Entomosporium_. Microscopists recognize _Entomosporium_ by the dark, blister-like fruiting bodies (acervuli) which form beneath the leaf cuticle and produce five-celled spores with appendages causing them to resemble microscopic insects.

Symptoms. Lesions on the leaves begin as tiny dark spots and develop into brown to gray irregular spots a few millimeters in diameter. Lesions may be scattered or so numerous that they coalesce to form large dead blotches. Dark, blister-like acervuli form beneath the cuticle in the centers of the lesions soon after death of the plant tissue. Heavy infection results in defoliation. Hawthorn leaf blight is sometimes mistaken for scab disease which also can cause defoliation. Scab lesions are generally larger and more diffuse than leaf blight spots. Close examination of mature leaf blight spots reveals the dark crusty acervuli (fruiting bodies) of the causal fungus.

Disease management. The following steps are needed to control leaf blight:

- Rake up and destroy all fallen leaves as they occur and in the autumn.
- Prune out overhanging vegetation from other trees nearby to improve light penetration and air movement through the hawthorn and to reduce moisture and humidity.
- If needed, thin out some of the branches of the hawthorn tree for the same reason.
- Decide if a spray program can be justified. How valuable is the tree? Has the tree suffered defoliation in the past? Does the tree owner have the equipment or the means to spray?
- If a decision to use fungicides is made, the first application should be made in spring during bloom, and repeated twice more at two-week intervals. Good coverage is essential.
- Either mancozeb (Fore or Cleary’s Protect T/O) or thiophanate-methyl (Cleary’s 3336) should be effective for leaf blight.

BACTERIAL LEAF SCORCH SYMPTOMS ARE APPEARING IN LANDSCAPE TREES
by John Hartman

Bacterial leaf scorch disease, caused by _Xylella fastidiosa_, is a chronic disease of many oaks and other trees in Kentucky. Symptoms are now evident in many infected trees. Look for death or “burning” of the leaf margins while the parts of the leaf nearest the midrib and veins remain green. Affected leaves often drop from the tree prematurely. Bacterial leaf scorch progresses within the tree, causing gradual decline for several years until the tree finally needs removing.

HOUSEHOLD

DANGER ZONE: ELIMINATING WASP AND HORNET NESTS
by Mike Potter

Wasp stings are a serious health threat to humans and animals. Many people in the United States die each year from allergic reactions to the venom of these insects. Paper wasps, hornets and yellowjackets are more dangerous and unpredictable than honey bees. Workers foraging away from the nest are seldom aggressive, but nests should be eliminated with great care and in a specific manner. “Folk” remedies, such as dousing nests with gasoline or a garden hose, seldom work and can result in multiple stings.
**Paper Wasps** – Paper wasps (as well as hornets and yellowjackets) construct nests of a paper-like material containing finely chewed wood fragments and salivary secretions of the wasps. Paper wasps typically build their umbrella-shaped nests under eaves and ledges. These brownish wasps are not as aggressive as yellowjackets or hornets, and can be eliminated rather easily with a wasp and hornet spray sold at most retail stores. One advantage of these formulations is that they can be sprayed as far as 20 feet. Although it is best to treat all wasps at night, paper wasps can be eliminated during the daytime provided you do not stand directly below the nest during treatment. Most wasp sprays cause insects to drop instantly. Standing directly under a nest increases the risk of being stung. After treatment, wait a day to ensure that the colony is destroyed, then scrape or knock down the nest.

**Hornets** – Hornets are far more difficult and dangerous to control than paper wasps. The nests resemble a large, gray, bloated football, which typically is attached to a tree, bush or side of a building. Oftentimes the nest is concealed amongst branches, especially in densely canopied trees such as Bradford pear. Hornet nests may contain thousands of wasps which are extremely aggressive when disturbed. The nests often are located out of reach and removal is best accomplished by a professional pest control firm. Treat hornet nests at night when most insects are within the nest and less active (follow night treatment precautions discussed below for yellowjackets). A full wasp suit, sealed at the wrists, ankles and collar, is recommended. Apply an aerosol-type wasp and hornet spray or dust formulation (Sevin, Drione, DeltaDust) directly into the nest opening. Hornet nests generally have a single opening, usually toward the bottom, where the wasps enter and exit. It is crucial that the paper envelope of the nest not be broken during treatment or the irritated wasps will scatter in all directions, causing even greater problems. Following treatment, wait at least 2-3 days before removing the nest to ensure that all of the wasps are killed. If hornets continue to be seen the application may need to be repeated.

If the nest is located away from frequently used areas, another option is to wait and do nothing. In Kentucky, wasp, hornet, yellowjacket, and bumble bee colonies die naturally after the weather turns cold, and the paper carton disintegrates over the winter months.

**Yellowjackets** – Yellowjackets are probably the most dangerous stinging insects in the United States. They tend to be unpredictable and usually will sting if the nest is disturbed. Yellowjacket nests are often located underground in old animal burrows (especially chipmunks), or beneath rocks or landscape timbers. Yellowjackets also build nests in walls, attics, crawlspaces, and behind exterior siding of buildings.

If the nest can be located, it often can be eliminated by applying an aerosol-type wasp and hornet spray into the nest opening. Insecticide dust formulations containing Sevin (sold in lawn and garden shops), DeltaDust, or Drione, are especially effective but require a hand duster to dispense several puffs of the dust into the nest opening. In lieu of a commercial duster, a workable alternative is to use a dry, empty liquid detergent bottle filled with an inch or so of dust. A few pebbles or marbles added to the bottom prevents the dust from caking, and the bottle should be shaken before dispensing. (Remember to dispose of the bottle after use, or store it away from children and pets). Dusts tend to be more effective than aerosols when the nest itself is located some distance from the entrance hole — as often occurs when yellowjackets construct nests behind house siding or deep within abandoned animal burrows. Insecticide dust blown into the opening penetrates further than sprays, and is also carried throughout the nest on the bodies of the workers. Ideally, treatment should be performed at night, when most of the yellowjackets are in the nest and less active. Pinpoint the nest opening during the daytime, so you will remember where to direct your treatment after dark. Approach the nest slowly and do not shine the beam of your flashlight directly into the nest entrance as this may startle the wasps. Instead, cast the beam to the side to illuminate the nest indirectly. If possible, place the light on the ground rather than in your hand.

When contemplating extermination of a yellowjacket or hornet nest, clients should be informed that they are entering a DANGER ZONE — there is no pest control scenario more frightening than a ÆblownÆ wasp or hornet treatment. Consequently, it is often prudent to refer homeowners to a professional, especially when access to the nest is difficult.

Wasp, hornet and yellowjacket stings can be life-threatening to persons who are allergic to the venom. People who develop hives, dizziness, difficulty breathing or swallowing, wheezing, or similar symptoms of allergic reaction should seek medical attention immediately. Itching, pain, and localized swelling can be reduced with antihistamines and an ice pack.

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**DIAGNOSTIC LAB HIGHLIGHTS**

by Julie Beale and Paul Bachi

Last week in the Diagnostic Laboratory, we diagnosed corn rootworm injury and symptoms of low soil pH in corn; summer black stem and Cercospora leaf spot in alfalfa; potash deficiency, soybean cyst nematode, sudden death syndrome, Rhizoctonia root rot and downy mildew in
soybean; and blue mold, frogeye leaf spot, black shank, target spot, tobacco streak virus and fenching on tobacco.

On fruits and vegetables, we diagnosed downy mildew on grape; Botrytis gray mold on raspberry; frogeye and sooty blotch on apple; angular leaf spot (Isariopsis) on bean; Rhizoctonia damping off on cabbage; powdery mildew on pumpkin; gummy stem blight on watermelon; and leaf mold (Fulvia), root knot nematode, Fusarium wilt and Septoria leaf spot on tomato.

On ornamentals, we saw Choanephora rot on zinnia; Botryosphaeria canker on bittersweet; powdery mildew on dogwood; scab on crabapple; Cristulariella leaf spot on hibiscus, spicebush and walnut; Verticillium wilt on maple and magnolia; Hypoxylon canker on maple; and foliar galls (insect) on oak.

INSECT TRAP COUNTS
UKREC, Princeton KY

August 15 - 22, 2003
Black Cutworm ..................................... 6
True Armyworm ................................... 17
Fall armyworm ................................. 0
European corn borer ............................ 17
Southwestern corn borer ...................... 8
Corn earworm ................................. 37

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.