

# KENTUCKY PEST NEWS

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### CURRENT BLUE MOLD STATUS REPORT

by William C. Nesmith

Blue mold has become established over a highly broken, but wide front in Kentucky. Most extension areas have one or more counties with activity. Overall, the level of activity in Kentucky is still low, however, but hot spots of inoculum are building rapidly in some communities. Economically damaging levels of blue mold have not been reported in the state, except for hot spots involving small portions of the field. Even in communities with active blue mold, activity is not being found in most fields, based on agent's reports. A report by areas is present on the Kentucky Blue Mold Website at <http://www.uky.edu/Agriculture/kpn/kyblue/kyblue.htm>.

Remember that blue mold is very weather sensitive. It is easily held in check by dry weather but has explosive potential during rainy or foggy weather, especially when night temperatures drop into the 60's for several hours. High night temperatures have been a key factor in holding the disease in check during the past two weeks, so be especially alert in communities with active blue mold should night temperatures fall into the 60's before midnight. Weather in the Ohio River Valley has been highly variable this season in both the timing and geographic distribution of moisture. Some areas are still in serious need of rain (especially near and north of the Ohio River) while others have recently had adequate moisture. Even in areas with rain, conditions have been

teetering back and forth between short periods of blue mold favorable weather and longer unfavorable events. This has resulted in a much more random pattern of blue mold development than we normally experience. Consequently, the blue mold potential in some areas has not changed while in others it has increased significantly in the past few days; depending mainly on where the moisture events occurred and if they were accompanied by sufficient drop in night temperatures to favor infection and sporulation.

The disease is also established to varying levels in western Virginia, eastern Tennessee-western North Carolina, and middle Tennessee just a few miles south of the Kentucky line, and inoculum from these have contributed and will likely continue, too. Blue mold is active to various levels in all burley producing counties of western Virginia, ranging from isolated events to approaching being out of control. They are generating considerable inoculum! Over the long term, the inoculum (viable spores) in our region will be moving northeast from most sources, but the level of activity in the southern Appalachians is getting sufficiently high that we need to remain very alert to possible winds from the southeast moving a large volume of viable spores into eastern and central Kentucky. Remember, scouting is helpful in reacting to low levels of blue mold but is of little value against massive inoculum loads. Controls must be in place ahead of massive-load events.

Crop stages are also highly variable, ranging from recently set to approaching harvest in the same community or even on the same farm. Young crops can be damaged seriously with low levels of inoculum, while

older crops can sustain considerable blue mold before serious economic damage occurs. Hot spots of disease in older crops, that may not economically justify control efforts for that particular farm/field, can generate sufficient inoculum to economically threaten younger crops. Thus, each manager needs to carefully consider the potential of blue mold developing to damaging levels in each crop based on the current situation, not that of several days or weeks ago, and prepare accordingly. I strongly urge growers at this time of year to include in their management system twice weekly scouting for the disease and frequent monitoring of the Kentucky Blue Mold Warning System.

Recognize that the potential for blue mold to cause economic damage declines sharply with topping and maturity of the crop. Thus, crops that are at topping stage need to be topped, with the recommended sucker controls applied, and in most cases no additional blue mold control is needed for those crops. But, strong activity can continue for several days after topping in crops of rapidly expanding tobacco under good soil moisture and high fertilization - even more so if ground suckers are commonly infected and sporulating. Even with control in older crops, growers still need to pay particular attention to later crops, because large amounts of inoculum can be generated from older crops (without much damage to them) and from suckers. Also, sucker regrowth from harvested crops will soon begin to support large populations of the blue mold fungus, increasing the inoculum load in the community. This latter risk can be easily eliminated by preventing sucker regrowth through timely destruction of stalks and roots and seeding of cover crops.

See issue 948 of Kentucky Pest News (April 22, 2002) for the foliar fungicide options labeled in Kentucky for use in the field. The Actigard treatments should be useable by all growers because they are easily applied with common spray equipment, but this material has risks and limitations, too. To minimize the phyto problems, do not apply it until the plants are 18" tall and be very careful to not exceed the rate of 0.5 oz/acre, which is only a level tablespoon per acre. Be aware that this chemical is not a true fungicide - killer of fungi - but rather induces the plant's own defenses against blue mold. After the application, about five days are required for adequate defense to be in place and a second application is required to sustain the defense for a three week period. Do not expect total control with Actigard, rather expect it to significantly slow disease development - fewer lesions, smaller lesions, reduced sporulation, and fewer systemic vein strikes. Acrobat MZ, applied properly and in a timely manner, will provide the highest level of blue mold control of available materials. It is a powerful antispore and will greatly reduce blue mold development when applied well and timely. However, few growers have access to the spray equipment required to correctly apply Acrobat MZ, especially in large tobacco. Poorly applied Acrobat MZ is of little value in large tobacco. Should shortages of Acrobat MZ develop, Acrobat 50 WP and Dithane DF Rainshield can be tank mixed to make essentially the same fungicide as is in

Acrobat MZ. Dithane alone will not provide adequate control of blue mold under most farming conditions in Kentucky and Acrobat 50 WP should not be applied without a mixing partner.

## **SKUNK DAMAGE TO TOBACCO - IT'S THE WORMS!**

**By Lee Townsend**

Natural enemies can provide an important measure of control for many crop pests. Sometimes, however, they can become too enthusiastic in their work and cause more damage than the pest on which they feed. This is certainly the case with skunks and hornworms. Skunks can totally destroy a tobacco plant just to get at a succulent hornworm feeding on it. The more hornworms in a field, the more damaged plants.

Skunks apparently stand on their hind legs and use their front paws to break leaves off the stalk. A pile of broken leaves at the base of the plant, and the presence of a few coarse white-tipped black hairs are evidence that skunks have been feeding. Distinctive skunk tracks may be found in the field if the soil is wet enough to hold them. Skunks typically are active at night so the evidence of their feasting is present but the animals have long gone.

The most effective means of reducing skunk damage is to do a good job of controlling hornworms. Skunks must use the visual appearance of hornworm damage as a clue to tear into the plant for a snack. They do not seem bother plants that do not have obvious signs of hornworm feeding.

## **SOYBEAN**

### **"RACES" OF SOYBEAN CYST NEMATODE SOON TO BE A THING OF THE PAST**

**by Don Hershman**

Two weeks ago I attended the National Soybean Cyst Nematode (SCN) conference held in St Louis, Missouri. During the conference, it was confirmed that nematologists will soon be replacing the existing SCN "race" system with a new system for describing variability between field populations of SCN. This new system will describe SCN populations as being of a specific "HG-Type". The "HG" alludes to the scientific name for SCN, *Heterodera glycines*. The use of the term "type" in place of "race" requires some explanation.

Races, or more accurately physiologic races, is a term which was initially coined to describe fungal isolates that looked the same, but had genetically-based differences in their ability to cause disease. For lack of a better term, in 1970 nematologists applied "race" to SCN in an attempt to characterize differences in SCN field populations. The

intent for instituting the SCN race system was to give nematologists a standardized means for characterizing SCN field populations and for communicating among themselves.

Initially, four SCN races were described, based upon the ability of specific SCN populations to reproduce on four plant “differentials” (Table 1). Differentials were selected because they were thought to contain unique combinations of resistance and susceptibility genes and could be used to discriminate between all SCN field populations.

Table 1. SCN race descriptions based on relative reproduction on four plant differentials (Golden et. al. 1970).

Reaction on differential				
SCN “race”	Pickett	Peking	PI 88788	PI 90763
1	-	-	+	-
2	+	+	+	-
3	-	-	-	-
4	+	+	+	+

+ = Number of SCN cysts recovered 30 days after inoculation was 10% or more of the number that developed on the standard SCN-susceptible (Lee/Essex).  
 - = Number of cysts recovered was less than 10%.

The basis of the SCN race system was to compare reproduction of SCN populations on the differentials, relative to reproduction on a standard SCN-susceptible, Lee (Essex has also been used). If the SCN population being typed had at least 10% reproduction on the differential compared with Lee/Essex, then the reaction was designated “+” (plus). If reproduction on a differential was less than 10% of what it was on Lee/Essex, then the reaction was designated “-” (minus). The 10% cutoff was arbitrarily determined and there was no real biological significance attached to it. This decision by nematologists to apply the 10% cutoff in the SCN race system has resulted in some problems which are discussed later in this article. In any event, the resulting + and - matrix for the SCN population being typed, was then compared with established race descriptions and a race designation was made.

Almost immediately, scientists began to find SCN populations that did not fit any of the four races described in 1970. This situation was ameliorated in 1988 when 12 additional races were described, bringing the total possible number of SCN races described to 16. But even then, nematologists found SCN populations that did not fit the published race descriptions. The problem was with the differentials being used to type SCN races. There was genetic overlap between certain of the differentials. In

addition, the genetic basis of the differentials was insufficient to discriminate between some SCN populations. Concurrently, nematologists began to discern that it was inappropriate to apply the term “race” to a mixture of SCN genotypes, such as exists within SCN field populations.

To compound problems, seed companies began to use the SCN race system in the development and marketing of SCN-resistant soybean varieties. The originators of the SCN race system never intended that system to be used in such a way. The result is that SCN races have caused some confusion within soybean industry and some misinformation has resulted. The reason for this is two-fold. First, because of the 10% cutoff (described above) when characterizing SCN races, two or more SCN populations with the same race designation may be quite different in their abilities to reproduce and cause disease in soybean. For example, one SCN population may have 10% relative reproduction on a differential and another might have 90% reproduction on the same differential; however, they will both get a + (plus) for reproduction on that specific differential. In other words, the race designation in this case does not accurately represent the aggressiveness of the two SCN populations. Second, SCN-resistant soybean varieties with the same published race resistance, may react very differently when exposed to the same SCN population. This is because soybean breeders have variable success in capturing and incorporating SCN resistance into elite lines, even when the same parents are used.

Nematologists have decided it is time to discard the SCN race concept and begin afresh with the HG-Type system. The new system will utilize all known sources of SCN resistance as “differentials”. Additions will be made to the system as new sources of SCN resistance are identified. The main purpose of the new system is to accurately characterize the reproduction potential of SCN populations on all known sources of SCN resistance. The new system will create some interesting short-term tension in the industry. It will take a year or two before seed companies determine how to react to the changes. They may decide to forge their own path and retain the race designations. Alternately, they may drop SCN race designations for SCN-resistant varieties and market varieties according to the source(s) of resistance used in variety development. There are other possible ways for the soybean seed industry to react and all of them have both good and bad points. It will be a challenge to everyone involved. Education will be a key, and that is why I have begun the process now.

I will describe, in detail, the new HG-Type system at a later date. The scientific paper describing the new system has been accepted for publication, but has yet to be printed.

## **GRASSHOPPERS ACTIVE IN SOYBEANS** **by Doug Johnson**

Fortunately some areas have received a much needed rain

over the last several days. However, Kentucky is still dry and looks to remain so for the immediate future. This always raises questions about grasshoppers, especially in soybean. Although we have already seen some problems this year, they are always sporadic and not easily predictable.

Dry conditions are associated with grasshopper problems for three reasons. 1. Grasshoppers are normally kept under control by a naturally occurring disease. This disease requires high humidity and/or rain fall to work effectively. In the absence of adequate moisture, more hoppers escape the disease and live longer. 2. Dry conditions cause the normal hosts of grasshoppers, e.g. waterways, roadsides, pastures etc to become less desirable food sources and thus the hoppers begin to move to alternate sites (usually our crops). Field crops are generally planted much less densely than grass surrounds and therefore will remain greener longer thus attracting the moving hoppers. 3. Soybeans will tolerate dry conditions for a good long while. However, when under drought stress they will not put on additional foliage and their progress through the growth stages is slowed. This allows the same number of grasshoppers to do more damage than they normally would. For more specific information on the common grasshoppers in KY please consult Entfact-116.

Grasshoppers are not hard to notice but they may be hard to count and thus it is sometimes hard to know if there are enough present to be of concern. Generally the best method of evaluation is not to count the hoppers, but to estimate the defoliation on the plants. You can find a decision making table (Table-2) based on defoliation in, ENT- 13, Insecticide Recommendations for Soybeans-2002 or in the KY IPM Scout Manual for Soybeans.

To use these tables you will need to 1. Estimate the amount of defoliation, 2. determine the general growth stage of the plant, and estimate the cost of treatment and value of the beans ( in bushels.) If you enter the tables based on growth stage, protection cost and value of the beans you can read off a level of defoliation that would be needed in order to justify a spray.

Grasshoppers are relatively easy to kill. However, they can also move great distances. So, even if you do get control of them in a given field, it is possible for other hoppers to show up at a later date. This means that you must keep your eyes open even after one population has been controlled. Remember when you apply an insecticide you not only control the pest you also kill the natural enemies of that pest. So, if the pests return you are even more likely to have a damaging population. Only treat if absolutely necessary.

You may obtain copies of all our publications at your Count Extension office or at the following web addresses:

Entfact-116  
<http://www.uky.edu/Agriculture/Entomology/entfacts/fldcrops/ef116.htm>  
ENT-13

<http://www.uky.edu/Agriculture/PAT/recs/crop/croprec.htm>  
Soybean Scout Manual  
<http://www.uky.edu/Agriculture/IPM/manuals.htm>

## FORAGES

### ALFALFA VARIETIES FOR LATE-SUMMER SEEDING

by Paul Vincelli

Late-summer seedings of alfalfa are at risk from *Sclerotinia* crown and stem rot (SCSR), caused by the fungus *Sclerotinia trifoliorum*. While some fields are successfully fall-seeded, others can experience severe stand loss from the disease. Factors that affect the risk of the disease are: described below.

**1. Cropping history of site.** This fungus only attacks forage legumes, so sites with a long history of row cropping are likely to have low levels of the fungus. However, I emphasize the word "long". This fungus can survive in the soil at high levels for 5-6 years without any forage legumes. Also recognize that the fungus can maintain itself indefinitely on volunteer clovers in a pasture.

**2. Time of seeding.** Relative to late-summer seedings, mid-August is preferable to seedings in late August or September, because this gives plants more time to develop some natural resistance. Spring seedings have very little risk of the disease.

**3. Tillage.** I don't recommend plowing as a disease control practice, since soil conservation is important to us and future generations. However, moldboard-plowed fields have the least risk, followed by reduced tillage, with no-till seedings having the most risk (assuming the fungus is there). Plowing buries the survival structures (sclerotia), reducing spore levels in the fall.

**4. History of adjacent fields.** Even if SCSR has not been observed in the field being sown, the field may still be at risk if the disease has been detected in adjacent fields. Adjacent fields can be a source of airborne spores for the newly seeded fields. Also, the detection of SCSR in adjacent fields suggest that local conditions have allowed SCSR outbreaks in the past and may allow them in the future.

**5. Field size/shape.** Let's assume, for example, you are going to seed a 2-acre field surrounded by pasture. The field has been planted to tobacco for the past 10 years, and was plowed and disked to create a good seedbed. What's the risk of SCSR? Keep in mind that this is an airborne fungus. The pasture surrounding the field could easily provide enough inoculum to cause a serious outbreak. The larger the field, and the less border it shares with possible sources of inoculum, the less the risk.

If one plans to seed in late summer, consider using a

variety selected for partial resistance to SCSR, especially if one or more of the above risk factors fits. Varieties in the Cimmaron series have provided significantly better stands than susceptible check varieties in several UK tests, where the disease pressure was high. Therefore, these would seem to be good choices. WL 338SR provided a significant improvement in stand in one of two tests; in the other, no benefit was found, and it was damaged rather severely (as were all commercial varieties in that particular test). Therefore, this may also be a reasonable choice, but its performance may depend on how severe the disease pressure becomes. Other varieties marketed with SCSR resistance have had little or no testing in UK trials, although invitations are made to provide entries for testing.

Recognize that the resistance to SCSR is *partial resistance*, not complete resistance nor immunity. The use of a variety with partial resistance to SCSR will provide some protection against the disease, but it will still become diseased—perhaps severely—under high disease pressure. However, based on UK research, such a variety will provide some protection against the disease, especially under low to moderate disease pressure. If SCSR does develop in a stand seeded with a SCSR-resistant variety, expect that the crowns will survive better than those of a susceptible variety. Thus, the level of damage may be rather high for the first cutting, but expect regrowth after the first cutting to be better than would be seen with a susceptible variety.

Thanks to Garry Lacefield and Jimmy Henning, UK Forage Agronomists, for reviewing the article.

## **FALL GRASS AND ALFALFA SEEDINGS CAN FACE SERIOUS PEST PROBLEMS**

**By Lee Townsend**

Emerging grasses and legumes can be seriously injured by any of a variety of pests. In general, preventive treatments are not economical but field checks during the establishment phase will allow detection of problems in time to take corrective action in those fields where insects are at damaging levels. Here are some pests to watch:

Fall armyworms have been active in Kentucky. This insect can wipe-out developing stands of alfalfa and grasses, including right-of-way seedings. Fields beginning to show green may suddenly revert to bare soil in specific areas or throughout the entire field as the larvae get larger. Close examination of injured areas may reveal small caterpillars lying on the soil surface or hidden beneath surface residue. Excellent control can be obtained with an insecticide but the secret is to treat before stand loss is extensive. Fall armyworm larvae will feed for about 3 weeks or more and will move as they eat all of the plants in an area. The damaged area will increase over time.

Randomly select 4-square foot areas over the field and look carefully for signs of clipped seedlings, black waste

particles on the soil surface, or the caterpillars themselves. While there are no standard treatment guidelines, an average of 1 or more larvae per square foot with 1" plant growth on an acceptable stand probably justifies control.

Mexican bean beetles and spotted cucumber beetles / southern corn rootworm beetles feed a lot before moving to protected locations beneath leaf litter, etc to pass the winter in an inactive state. They can accumulate in patches in alfalfa fields and can clip and kill small legume seedlings. Ultimately, the beetles will leave the field and may be present for only short time. Spot treatments can be applied as needed.

Cutworms, crickets and grasshoppers are most numerous at this time of year and can "graze off" seedlings in a relatively short time. As with the pests listed above, control measures are effective if damage is detected in time. Check regularly for these hopping insects. While no specific guidelines are available, 10 or more per square yard along with obvious dipping should be a good guideline.

Some general points to consider:

General stand and plant vigor- adjust numbers up for very good to excellent stands and larger plant size; reduce numbers needed for treatment with sparse stands or very small seedlings where little additional damage can be tolerated.

Consider loss from treatment- how much damage will be done just by the sprayer tracks across the field? Wide booms will help to reduce this.

Low rates should be give very satisfactory results because the pests are very exposed with little foliage to protect them.

Avoid problems by allowing as much time as possible between killing existing vegetation and seeding. This will allow many of the aboveground pests to leave for "greener pastures- and will mean starvation of those living in the soil. The shorter the interval from destruction of the previous plants and emergence of the new crop, the greater the potential for serious pest injury.

## **LIVESTOCK**

### **JULY 31 - OPENING OF CATTLE GRUB TREATMENT SEASON**

**By Lee Townsend**

Application of a cattle grub treatment is one of the Kentucky CPH requirements. Cattle grub infestations require more trimming of carcasses and decrease the value of hides. Grubby carcasses are routinely docked by packers.

Cattle grub control is a part of producing quality steers headed for the feedlot. While the damage (cysts or

swellings long the back line) will not be evident for several months, control measures must be applied to Kentucky cattle between now and October 31 to kill the pests without harming the animal.

### **Host Reaction to Cattle Grubs**

Depending upon the species, cattle grub larvae move either to the esophagus (common cattle grub) or spinal column (northern cattle grub) during their migration to the back. The grub larvae are in these sensitive areas during November and December. If large grubs are killed there, the surrounding tissue can become severely inflamed and additional symptoms can develop.

In animals infested with the common cattle grub, the esophagus can swell shut, and produce difficulty swallowing, drooling, or bloat. Northern cattle grubs killed in the region of the spine can put pressure on the spinal column. This results in stiffness in the hind quarters, loss of balance, or inability to lift the hind feet.

Be careful when treating for grubs. Use accurate weight estimates to determine the proper dose. Undertreating may not provide satisfactory control. At best, overtreatment will waste money; at worst, it may cause the animal to become sick.

There are a variety of formulations of cattle grub insecticides. Pour-on or Spot-On products are convenient if good handling facilities are available. High pressure sprays are a good choice when chutes or working pens are not an option. Animals must be wet to the skin when high pressure sprays are used. Ivomectin or related products, used as a dewormer in the fall, will also control cattle grubs. There is no need to treat with an insecticide, too.

## **FRUIT CROPS**

### **GRAPES - ANTHRACNOSE DISEASE CAN BE DESTRUCTIVE**

by John Hartman

Anthracnose disease is reducing yields in some Kentucky vineyards. This disease, caused by the fungus *Elsinoe ampelina*, is favored by our typical summertime warm, humid, and rainy weather. Anthracnose reduces the quality and quantity of fruit and weakens the vine. Once the disease is established in a vineyard, it can be very destructive. European and hybrid grapes are thought to be more susceptible than American grapes and grape varieties such as 'Vidal' and 'Reliance' are known to be highly susceptible to anthracnose.

Symptoms. Symptoms can appear on fruit, fruit pedicels and peduncles (fruit stems), leaves, leaf petioles, tendrils, and young shoots, but lesions on shoots and berries are most common and distinctive. Symptoms being seen now on berries, begin as small, reddish circular spots which enlarge to slightly sunken spots about 1/4 inch diameter. The spots have whitish gray centers with a

reddish-brown to black margin. Because the fruit symptom resembles a bird's eye, the disease is sometimes called bird's eye rot. During wet weather, a pink mass of fungal spores can be seen emerging from acervuli (fungal fruiting structures) in the lesions. Fruit lesions may extend into the pulp and cause the fruit to crack. On young, succulent shoots, symptoms first appear as numerous small, circular, reddish spots. As spots enlarge, they become sunken, and develop gray centers and with dark, slightly raised margins. When lesions coalesce, shoots become blighted. Infected areas may crack, causing shoots to become brittle. Sometimes hail injury may be confused with anthracnose symptoms on shoots. Hail injury should only appear on one side of the shoot whereas anthracnose is more generally distributed. Anthracnose symptoms on leaf petioles and fruit pedicels and peduncles are similar to shoot symptoms. Leaf spots are circular with gray centers and dark margins. The center of the lesion often drops out, creating a shot-hole appearance. New leaves are more susceptible to infection than older leaves and when veins of young leaves are affected, the lesions prevent normal leaf development. Such leaves may become, malformed or if lesions are numerous, leaves may become blighted.

How the disease develops. During wet weather in early spring, sclerotia (overwintering fungal survival structures) on infected shoots germinate to produce abundant spores (conidia). Conidia, the most important source of primary inoculum are spread by splashing rain and wind to new growing tissues. In addition, ascospores may also form on diseased canes and berries left on the ground or in the trellis from the previous year. In spring, when free moisture from rain or dew is present, conidia germinate and infect succulent tissue. The warmer the temperature, the faster disease develops, so spring rains with warm temperatures are ideal for disease development and spread. Infections may occur from before flowering to véraison. Once the disease is established, acervuli form and produce secondary inoculum on diseased areas. Thus, the disease continues to spread throughout the growing season.

### Disease management.

- To reduce primary inoculum, prune out and destroy (remove from the vineyard) diseased plant parts such as infected shoots, cluster stems, and berries during the dormant season.
- Eliminate wild grapes near the vineyard. Being mainly rain splashed, the causal fungus probably spreads mostly from very local sources such as nearby fencerows and woodlots adjacent to the vineyard.
- Grow less susceptible varieties such as American grapes like 'Concord' and 'Niagara.'
- Use selective leaf removal, open training systems, and shoot positioning to open up the canopy to improve air circulation and reduce drying time of susceptible grape tissue.
- Use fungicides to prevent infections starting with a dormant application of liquid lime sulfur, followed by applications of fungicides during the growing season. For suggestions of fungicides to use and timing, commercial growers should consult U.K. Cooperative

## HOUSEHOLD

### FOREIGN GRAIN BEETLE

By Mike Potter

The foreign grain beetle is a common pest in Kentucky during mid- to late summer and is often found in tremendous numbers inside buildings.

The beetles are very small (about 1/16-inch long) and reddish brown. Foreign grain beetles belong to the same family as the sawtoothed grain beetle and are similar in size, but can be identified from this insect by the lack of "sawtoothed" projections on the segment directly behind the head). The key characteristic to look for in identifying the foreign grain beetle is the presence of a slight projection or knob on each front corner of that segment. A microscope or good quality hand lens is necessary to see this character.

Foreign grain beetles are frequently problems in new houses, but not normally associated with grain and other stored products. These beetles are one of a group of beetles called "fungus beetles" that feed on the molds and fungi that grow on poorly seasoned lumber or wet plaster and wall board. If they are found infesting stored products, the products generally are moldy or in poor condition.

When new homes are built, damp wood is often covered with molds or mildew which attracts the beetles. The beetles may also be attracted to accumulations of sawdust which often occur behind walls as a byproduct of construction. Eggs are laid on this food material and the larvae develop on the surface fungi. The adults usually become a problem in late summer when they move out of wall voids and are attracted to windows and lights. Foreign grain beetles can also be associated with plumbing leaks, condensation problems, or poor ventilation.

See Entfact 610 for control information.  
[www.uky.edu/Agriculture/Entomology/entfacts/struct/ef610.htm](http://www.uky.edu/Agriculture/Entomology/entfacts/struct/ef610.htm)

## LAWN & TURF

### GRAY LEAF SPOT PREVENTIVE PROGRAMS SHOULD BE IN PLACE ON HIGH-MAINTENANCE PERENNIAL RYEGRASS

by Paul Vincelli

The title of this article is the bottom line. This season has the potential to be another epidemic year for gray leaf

spot of perennial ryegrass, caused by ryegrass-infecting strains of *Pyricularia grisea*. In the July 8, 2002, issue of *Kentucky Pest News*, I reported on the very early detection of the disease in a newly seeded perennial ryegrass lawn in Lexington. On Jul 16, I found a very small patch of blighted turf on established perennial ryegrass at the UK Turf Center. This is the first time I have ever detected the disease from natural inoculum at this site, and my earliest detection of blighted turf from gray leaf spot on any established sward of perennial ryegrass.

While predicting the future activity of diseases is very difficult, this season has the potential to become an epidemic year. Managers of high-maintenance perennial ryegrass turf should have preventive spray programs in place by the last week of July. See the previous article in *Kentucky Pest News* ([www.uky.edu/Agriculture/kpn/kpn\\_02/pn020708.htm#lawgra](http://www.uky.edu/Agriculture/kpn/kpn_02/pn020708.htm#lawgra)) or the UK Extension publication PPA-1, *Chemical Control of Turfgrass Diseases*, for information on fungicides for gray leaf spot control. PPA-1 is available from UK Extension agents or on the web at [www.ca.uky.edu/agc/pubs/ppa/ppa1/ppa1.pdf](http://www.ca.uky.edu/agc/pubs/ppa/ppa1/ppa1.pdf).

## INSECT TRAP COUNTS

### UKREC, Princeton, KY --July 5-12

Black Cutworm . . . . .	1
True armyworm . . . . .	12
Corn earworm . . . . .	40
European corn borer . . . . .	1
Southwestern corn borer . . . . .	216
Fall Armyworm . . . . .	2

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.