

KENTUCKY PEST NEWS

ENTOMOLOGY • PLANT PATHOLOGY • AGRONOMY

IN THIS ISSUE

799

January 12, 1998

ANNOUNCEMENTS

- 1998 COMMERCIAL PESTICIDE TRAINING DATES
- 1998 IPM TRAINING
- KFACA MEETING PROGRAM
- ELECTRONIC DELIVERY OF KPN

TOBACCO

BROADCAST SOIL FUMIGATION

CORN

 1997 RESULTS WITH TILT FOR GRAY LEAF SPOT CONTROL

LIVESTOCK

EXPECT LICE WHEN BUYING CATTLE

SMALL GRAINS

- STORED GRAIN CHECKUP
- APHIDS IN WHEAT
- FORAGES
 WINTER GRAZING CAN TAKE BITE OUR OF WEEVIL PROBLEMS

HOUSEHOLD

'TIS THE SEASON FOR HEAD LICE

GENERAL PEST

• TOP TEN ARTHROPODS IDENTIFIED AT UK IN 1997

PESTICIDE NEWS AND VIEWS DIAGNOSTIC LAB HIGHLIGHTS

ANNOUNCEMENTS

1998 COMMERCIAL PESTICIDE APPLICATOR TRAINING CATEGORIES, DATES, SITES AND TIMES

CATEGORIES 1, 2a, 3, 4, 10 & 12 (Cat. 2a: 8:30 am - 12:20 PM, testing at 1:00 pm; Cat. 3, 10. 12: 8:30 am - Noon, testing at 1:00 pm; Cat. 1, 4, 10, 12: 9:45 am - 2:00 pm, testing at 2:00.

2/3/98 - UK REC, Princeton
2/4/98 - English Park Center, Owensboro
2/5/98 - Brown Exposition Center, Western KY Univ.
Bowling Green
2/6/98 - Hardin Co. Extension Office, Elizabethtown
2/17/98 - Boyle Co. Extension Office, Danville
2/19/98 - Boone Co. Ext. Office: Ellis Coop. Ext. Ctr
Burlington, KY
2/24/98 - Fayette Co. Extension Office
Lexington, KY

2/26/98 - Pulaski Co. Extension Office Somerset, KY

Please Note that All 8 Sessions are approved for

CCA credits - 3 hours for IPM

1998 IPM Training

The 1998 IPM Scout Training School will be held Wednesday, March 18, at the UKREC in Princeton. The IPM training is day-long program that teaches weed, insect and disease identification and the procedures to use when scouting fields for pests. Pests of corn, soybeans, small grains and alfalfa will be covered. New and increasing pest problems will also be discussed.

The program will begin at 9:00 AM central time and end at 4:00 PM. Farmers, agri-businessmen and others who make decisions or give advice on pest management can benefit from this training. This meeting has applied to offer 6.0 CEU's for certified crop advisers. CEU's will be 2.5 in Crop Production, 2.5 in Pest Management and 1.0 in Soil Fertility. If you need more information contact Patty Lucas by e-mail (plucas@ca.uky.edu) or telephone 502/365-7541 extension 218 for more information.

KFACA MEETING PROGRAM

The KFACA Advanced Pesticide Workshop will be held on February 10, 1998 at the Executive East -Louisville. The meeting, 9:00 am - 3:00 pm, has been approved for continuing education credit for Categories 1 (Ag Plant Pest Control), 10 (Demonstration and Research), and 12 (Pesticide Dealer). There will be a registration fee. Call the KFACA office (502) 226-1122

Topics at this meeting include-

Electronic information delivery

Value of a high pressure sprayer in blue mold control of tobacco

Changes in sucker control practices

Evaluation of experimental fungicides for blue mold control

Aphid management decisions in wheat Timing of herbicide applications in no-till wheat

Options for insect control in stored grain

Tilt fungicide on corn- where does it fit?

The southwestern corn borer rears its ugly head capsule, again!

Why the increase in corn ear rot?

Crop tolerance to ALS chemistry

Liquid insecticide applications for corn rootworm control

Pesticide Drift - a brief review

Regulatory Update from the Division of Pesticides

ELECTRONIC DELIVERY OF KENTUCKY PEST NEWS AND SELECTED PROGRAMS

by Lee Townsend

You can subscribe to automatically receive each issue of the Kentucky Pest News by e-mail. To subscribe- send the following message to almanac@ca.uky.edu

subscribe pestnews

You will receive a confirmation message. If you wish at some point to discontinue the service send: unsubscribe pestnews to the same address. If you are already on the mail list there is no need to subscribe again.

The newsletter also is available on the world wide web at the following address-

http://www.uky.edu/Agriculture/kpn/kpnhome.htm This is a <u>new address</u> but should not change again, be sure to update your bookmark. The 1997 issues are there for your reference.

The Kentucky Integrated Pest Management (IPM) program site can be found at-

http://www.uky.edu/Agriculture/IPM/ipm.htm Available information includes scouting information and on-line manuals, as well as a list of sponsored projects, and a program description.

The Pesticide Applicator Program home page is accessible at-

http://www.uky.edu/Agriculture/PAT/welcome.htm It is the place to find the most current schedule of initial training and testing locations over the state and information on approved continuing education meetings. Category training manuals and information on laws and regulations are set up there also.

TOBACCO

BROADCAST SOIL FUMIGATION, A VALUABLE TOOL IN BLACK SHANK MANAGEMENT

by William Nesmith and Mark Leopold

Preplant soil fumigation has long been an important tool in the management of soilborne diseases in flue-cured tobacco growing regions and this technique has value for Kentucky. However, Kentucky's tobacco industry has until now rejected using preplant soil fumigation, because of the limitation associated with in-row, preplant applications into high-wide beds. Studies conducted during the past three years have demonstrated that broadcast applications of soil fumigants are a valuable tool in black shank management in Kentucky.

In this article, we report the results of a 1997 onfarm test conducted in Robertson County, Ky in cooperation with Hendrix and Dail, Inc of Frankfort, KY. Similar on-farm tests were reported in two previous editions of Kentucky Pest News, March 5 and April 29, 1996.

On a farm operated by J. Hester and T. Price, broadcast preplant soil fumigation with Chloropicrin at 100 pounds/Acre (about 7 gallons/A) was evaluated in a field with a history of serious black shank. The field was prepared as nearly ready to transplant then strips (35 ft. wide - 5 passes, 7 ft./pass) through the field were fumigated on April 29, alternating with an equal area not fumigated (checks). On May 17, additional fertilizer and Ridomil Gold at 1 pt/A were applied and incorporated and the field was transplanted with Hybrid 501, a black shank resistant hybrid having level 6 resistance.

Two weeks post fumigation, soil samples were collected from the fumigated and non-fumigated areas and the level of black shank inoculum present estimated using a bioassay. The result of this bioassay are in Table 1 and they indicate that fumigation greatly reduced the initial inoculum

Table 1. EFFECTS OF BROADCAST, PRE-PLANT SOIL FUMIGATION WITH CHLOROPICRIN ON THE INCIDENCE OF BLACK SHANK DETECTABLE BY SEEDLING-BIOASSAY IN SOIL COLLECTED TWO-WEEKS POST FUMIGATION - ROBERTSON COUNTY TEST PLOT - 1997

Sample Lot	Black Shank Incidence after 10 days(%)			
2118 (check)	80			
2122 (check)	70			
2123 (check)	100			
2117 (fumigated)	0			
2121 (fumigated)	0			
2124 (fumigated)	0			

During the season, black shank incidence was monitored and yields were carefully collected. Little black shank developed in the fumigated plots until after heavy rains in August. In Table 2, the summary data, clearly demonstrate the value of the fumigation treatment.

Table 2. EFFECTS OF BROADCAST, PRE-PLANT, SOIL FUMIGATION WITH CHLOROPICRIN ON BLACK SHANK CONTROL AND YIELD IN HYBRID 501, 1997 (T. Price Farm, Robertson Co., Ky)

		Yield (lbs/A)*						
Treatment	%Black Shank**	Bottom	Тор	Total \$Value***				
Fumigated	13.1 B**	463 A	1668A	2131A	3927.60			
Check	25.8A	362 B	1259 B	1621 B	2989.40			

*Crop was stripped into two groups, bottom portion of the plant and the top portion of the plant.

**Values within the same column followed by a different letter are significantly different at P = 0.05 as determined by the Tukey's Test for Honestly Significant Differences.

***Cost of fumigation was \$270 (equipment plus chemical) for a net improved return per acre of \$668.

Mark Leopold is County Extension Agent for Agriculture, Robertson County Extension Service.

CORN

1997 RESULTS WITH TILT FOR GRAY

LEAF SPOT CONTROL

by Paul Vincelli, Extension Plant Pathologist and Greg Henson, County Extension Agent for Agriculture, McLean Co.

For most farm situations, gray leaf spot is adequately managed with crop rotation and/or use of hybrids with partial resistance to the disease. Few producers rely on Tilt[™] fungicide for controlling the disease. The perception--backed by the research trials that we've conducted at UK--is that the disease can be more economically controlled using the cultural practices mentioned than using Tilt fungicide.

Brief Description of Methods

In order to expand the research base upon which we base our corn recommendations, we conducted another trial this past summer using Tilt fungicide to control gray leaf spot. The trial was conducted in McLean Co. on the farm of Paul Logsdon in a field with approximately 35-40% corn residue cover following a single discing. The field was seeded 17 May to Pioneer Brand 3394. Plots eight rows wide (30" row spacing) and 1080 ft long were arranged in a randomized complete block design, with four replications per treatment. Treatments were applied using a John Deere High Clearance sprayer traveling at 9 mph and applying 45 gal/A at 80 psi (first application) or 50 gal/A at 90 psi (later applications). One nozzle was directed over the row and two nozzles on short drop extensions were directed towards the sides of the plant. On 3 Sep (one-half milk line), disease severity was assessed by visually estimating the percentage of blighting on ear leaves on 31-39 plants selected at random throughout the length of each plot.

Results

Overall disease pressure in the trial was light to moderate. Although the trial was planted late, which can favor gray leaf spot development, dry weather during July and cool, dry conditions in August prevented the disease from developing to a high level. All three Tilt treatments reduced disease severity compared to the non-sprayed control (see table). The post-silk application allowed more disease to develop than did applications which included the silking treatment. No significant difference in yield or test weight was observed.

Conclusion

In UK studies thus far, Tilt applications have reduced severity of gray leaf spot but have not produced a significant yield difference in a susceptible hybrid. Under high to very high disease pressure, like many growers experienced in 1995, favorable economic returns from Tilt may occur in a susceptible hybrid. However, crop rotation and hybrid selection will continue to be preferred management approaches for most situations.

Timing & date of Tilt 3.6EC application	Rate	% blighting on ear leaf ¹	Transformed % blighting ²	% Moisture	Test wgt (lb/bu)	Yield (bu/A)
Unsprayed		11.6 (<i>30.9</i>) ³	0.342 a	15.7 b	58.1 a	132.6 a
Presilk (7 Jul) + 65% silk (21 Jul)		1.7 (0.52)	0.128 c	17.3 a	57.9 a	133.5 a
65% silk (21 Jul)	. 4 oz	2.9 (3.08)	0.166 c	16.4 ab	58.1 a	134.3 a
Postsilk (14 Aug)	. 4 oz	5.9 (3.33)	0.243 b	16.3 ab	57.9 a	134.0 a

¹Mean (variance) of untransformed disease severity.

²Disease severity data transformed using the angular transformation and analyzed by ANOVA.

³<u>Means followed by the same letter are not significantly different, Waller-Duncan k-ratio t-test (k=100, P<0.05).</u>

LIVESTOCK

EXPECT LICE WHEN BUYING CATTLE by Lee Townsend

Lice thrive in the winter and can spread easily through the herd as cattle bunch together in response to cold temperatures. Steps taken now with newly purchased cattle can reduce problems later. Keep new animals separate from your herd until after they have had thorough louse treatment. This generally means two applications of a contact insecticide. The first kills active adult and immature lice but does not kill nits or eggs on the hide. The second application is targeted at new hatchlings from the nits and any escapees that may still be

around. Systemic insecticides should not be used unless the treatment history of the animals is known. Migrating cattle grubs can be in sensitive locations in the animal and an adverse reaction can occur at this time of the year. After the treatment course, the new animals can be added to the herd with a minimal chance of problems. See ENT-11 for louse

SMALL GRAINS

control options.

STORED GRAIN CHECKUP

by Doug Johnson

As I write this, we have had a period of relatively warm, wet weather. It is a very good time to check your on-farm grain storage facilities. Warm, wet periods could provide you with evidence of leaks or developing spoilage in the bin. An article in the last issue of the KPN contained information on the Indian meal moth. This common insect is most likely to cause detectable insect problems on the grain surface.

If your grain has been properly cooled to near the surrounding air temperature and you have no water leakage, moisture problems are unlikely. However, to evaluate insect problems within the grain mass you need to know the internal temperatures, not just the surface temperature. As long as the grain is cool, even if you have an infestation, it will not amount to much. However, you will need to get on top of it as soon as the grain begins to warm up in the spring. If you don't currently have an infestation you are unlikely to get one until the grain is rewarmed.

It only takes a few minutes to pop your head into the hatch on a bin but the benefits can be quite large.

APHIDS IN WHEAT

by Doug Johnson

Warm weather always brings questions about the survival of aphids in wheat. Though the first few days of 1998 are predicted to be mild, we have had a good late fall in terms of aphid control. Just remember- as a general rule of thumb, anytime the temperature is below 50° F aphids basically cannot move, and anytime the temperature is below 30° F aphids are dying. I would suspect that over the last month Kentucky aphid populations have had a pretty hard time. Although I am always a proponent of looking at fields. I am guessing that not much is going on right now. If you have the opportunity to look, go the earliest planted field and look in areas with the most top growth and along field edges on the up-wind side. However, my feeling is that any BYDV transmission done in this crop season was done in the first 30-60 days post emergence.

FORAGES

WINTER GRAZING CAN TAKE BITE OUT OF WEEVIL PROBLEMS

by Lee Townsend

Alfalfa weevils returned to fields this past fall and began to mate and lay eggs. A significant proportion of the total number of eggs that they will place in living and dead stems are laid during the fall and winter. The remainder are laid in the spring.

Winter grazing serves two important purposes in managing weevils. First, grazing removes stems and the eggs that have been deposited so far. Second, it takes away sites where female weevils can finish laving their complement of eggs in the spring. This can substantially reduce weevil populations in a field and guite possibly to the point that an insecticide application is not needed in the spring.

HOUSEHOLD

'TIS THE SEASON FOR HEADLICE

by Mike Potter

Most people associate winter with the end of their insect problems. In the case of head lice, nothing could be farther from the truth. It is incorrect to associate head lice with the stigma of poverty and poor personal hygiene. In fact, it's estimated that ten percent of elementary school children are treated for head lice each year. See ENTFACT 607 -Management of Head lice for complete information.

There are four key steps to eliminating head lice and preventing their return:

1) The child or infected person(s) should be treated with a pediculicide shampoo formulated specifically to control lice. Several different products, most containing permethrin or pyrethrins, are available through pharmacists and physicians. Follow the directions on the package.

2) Remove all nits using a fine-tooth louse comb. Although this step can be guite time-consuming, nit removal is critical to eradication.

3) All personal articles that have been in contact with the patients's head should be deloused. Normal laundering with hot, soapy water (125 degrees F for 10 minutes), or dry cleaning will kill lice and nits on clothing, bed linens and towels.

4) To reduce the chance of reinfestation, children should be instructed not to share hats, clothing or

brushes with their classmates. Each child should have a separate storage space for their hats and other clothing at home and school to prevent contact with other garments. If this is not possible, coats should be hung on hooks so they do not touch. or on the backs of students' chairs.

Managing Persistent Head Lice Infestations

Despite all the above efforts, there are times when a head lice infestation seems to persist indefinitely. Persistent infestation may be due to various causes, one of the most likely being improper use of the pediculicide (e.g. insufficient time shampoo left on the hair, or failure to reapply after 7 to 10 days). Other times, not enough time was spent combing out the nits or no effort was made to concurrently treat other infested family members.

In rare, but increasing instances, the product in use may have lost its effectiveness. Head lice resistance to pediculicides has been documented recently in certain areas of the world, especially to permethrin. Resistance to pyrethrin/piperonyl butoxide formulations appears to be less common. if resistance is suspected to the pediculicide you have been using, consult with your physician.

GENERAL PEST

TOP TEN ARTHROPODS IDENTIFIED AT UK 1997

by Ric Bessin

The list is out, and the end-of-season rankings have been finalized. The top rankings represent the most common insect and related arthropods submitted by county agents and other clientele for identification and management recommendations. In fact, two pests at the top of the rankings are not even insects!

The arthropods that broke into this "top 10" are not necessarily the very common in Kentucky, nor are they necessarily the most important ones affecting agriculture, or man and animals in the Commonwealth. But they are the most common types sent in for diagnostic services where a specific identification and recommendation information is required.

Top ranking belongs to **Carpenter ants**. These can cause serious structural damage in the home as well. While carpenter ants don't eat wood, they hollow it out for nesting. Often they are found in wood that remains moist longer than normal due to leaky gutters or other factors. The situation must be corrected to allow the wood to dry out. Swarms of winged carpenter ants are a sign that they are nesting inside or very near the structure. Many

different types of ants can be found in homes. Management recommendations vary drastically depending on the type of ant involved so accurate identification is a must. For more information on carpenter ants see ENT 57, "Ant Control In and Around Structures," or ENTFACT 603, "Carpenter Ants."

The second ranking was captured by the **eastern subterranean termite**. These structural pests are frequently identified by county agents but are sent in for confirmation. Due to the high cost of repairing termite damage and expense of treatment, accurate identifications are essential. Often appearance of winged termite swarmers in the home is an indication of an active infestation. For information on termites see ENT 6, "Termites and Their Control," ENTFACT 604, "Termite Control: Answers for the Homeowner" or ENTFACT 605, "Protecting your Home from Termites." There is a new fact sheet for those considering using termite baits to eliminate termite nests, see Entfact 639, "Termite baits: A guide for homeowners."

Foreign grain beetle took the third spot. This is a perennial top 10 beetle that shows up in August and September Large numbers may be found inside buildings. These beetles are very small and may be confused with some stored product pests, such as the sawtoothed grain beetle. Foreign grain beetles are frequently problems in new homes, feeding on mold spores that grow on poorly seasoned lumber. For information on identification and biology of foreign grain beetles see ENTFACT 610, "Foreign Grain Beetle."

The lone star tick was forth. While this can identified be identified as a tick by most county agents, heightened concerns about Lyme disease, the most publicized arthropod-borne disease in the United States for the past few years, prompted a lot of identification requests. The good news is that the

adults of the lone star tick have not been shown to transmit Lyme disease. However, the lone star tick can vector rocky mountain spotted fever, another potentially deadly disease. For more information on ticks and these diseases see ENT 35, "Ticks and Disease in Kentucky."

Millipedes were fifth. Millipedes, or thousandlegged worms, are hardbodied, worm-like and segmented. Each body segment has two pairs of very short legs. When millipedes are touched or disturbed they curl up like the spring of a clock. Millipedes are scavengers and feed mostly on decaying vegetable matter. Sometimes they will attack the root hairs of living plants or feed in wounds of larger roots. Ordinarily, millipedes hide in compost piles or mulched areas or under litter, clods of dirt, or in cracks in the ground where there is some moisture. The spaces between sod and sidewalks or foundations are common hiding places. However, millipedes and sowbugs sometimes leave their natural habitats, especially at night, and crawl about over sidewalks, patios, and even up the walls of buildings. For more information see ENT 3, "Controlling Millipedes and Sowbugs."

Indian meal moth was the sixth most commonly sent in insect. The larvae of this insect infest stored grain products. Frequently, the appearance of these distinctive moths indicate an infestation in the home. For information on Indian meal moths and their control see ENT 29, "Household Insect Control."

Carpet beetles filled the seventh spot. They actually represent several species within a family. The varied carpet beetle was most common. This is another household pest. They attack items composed of animal fibers such as wool, furs, silk, feathers, felt, and leather. See ENTFACT 601, "Carpet Beetles," for more information.

Drugstore beetles were eighth. Drugstore beetles attack almost any household food, spice or leather article. Drugstore beetles are often in bread, flour, meal, breakfast foods, and spices like red pepper. Adults can fly and are attracted to light. While adults are the signs of an infestation, merely killing them is not the solution. Infested articles must be found and destroyed. Identification of the pest can provide clues on where to look but some of these insects can live on a wide range of materials. For more information see ENTFACT 612, "Stored Product Pests in the Pantry."

The ninth spot was taken by the **larger yellow ant**. While not nearly as serious as the carpenter ant, the larger yellow ant can be a nuisance, particularly in

the fall when the nests swarm. This insect has a distinct citronella smell when their bodies are crushed.

Fungus gnats filled the tenth spot. Fungus gnats are slender, delicate, mosquito-like flies. The larval stage is a small, active, thread-like white worm with a black head. The larvae live in damp soil and can damage small roots. Plants may drop leaves and generally lose vigor and color. Isolate infested plants. Insecticide sprays will kill adults. Allowing soil to dry more between waterings should help to control the larvae.

This wraps up the top ten for 1997. Another publication you should be familiar with when sending samples in for identification is ENTFACT 001, "Preparation of Insect Specimens for Identification."

UNDERSTANDING TREE LEAF SPOT DISEASES

by John Hartman

The most obvious and visible diseases of trees are those affecting the leaves. County Extension Agents often get calls from tree-owning clients who notice dead areas on leaves and defoliation. Most leaf spot diseases are favored by leaf wetness early in the growing season. Due to disease- favorable weather, unusually high levels of leaf spot diseases were observed during the 1997 growing season. The effect of each leaf spot on tree health varies with the disease and tree affected. In general, those leaf spots that result in premature defoliation will most harm the tree, and those that appear late in the season, or that cause very little death of leaf tissue, will only slightly harm the tree. Thus, it is important to diagnose leaf spots correctly and to know how a particular tree is going to respond to the disease.

Symptoms, signs, and diagnosis. Distinctions can be made as to the different kinds of spots and their general symptoms. Leaf spots are usually thought of as well-defined lesions or dead areas on leaves or needles. They may be circular or angular on broadleaves, or band-like on needles. Scab disease spots are circular, superficial and sometimes somewhat roughened lesions, while leaf blisters are swollen or raised blister-like spots on the leaf surface. If an individual leaf spot tends to be spreading into surrounding tissues, it may be referred to as a blotch. Anthracnose diseases often begin on leaves as a spot, then an irregular blotch, and finally as extensive dead areas that involve the whole leaf and shoot. Shot-hole symptoms develop in leaves when the dead tissue of the leaf spot drops out, leaving a hole. Because there are so many different fungi and bacteria that cause leaf spots, and there are so many different ways that tree species and cultivars react to the diseases, the symptoms will vary considerably.

For accurate diagnosis, signs of the fungus or bacterium must be observed; in other words, a direct sighting of the pathogen must be made. Although fungal fruiting bodies such as pycnidia are visible with a hand lens, sometimes the pathogen can only be identified with a compound microscope or special laboratory tests. With experience, symptoms alone are sufficient for diagnosis. County Extension Agents can gain experience by submitting to the plant disease diagnostic laboratory the first seasonal occurrence of a leaf spot for confirmation. Keep a record of the field observations, and when the laboratory response comes back, write down or remember the results. Other clients in the county with the same problem will benefit from the Agent's recently acquired expertise.

Causes. Many fungi, most of them ascomycetes or imperfect fungi, are parasites of tree leaves and cause spots. Fungi such as *Ascochyta, Cercospora, Cylindrosporium, Elsinoe, Marssonina, Microsphaera, Mycosphaerella, Phyllosticta, Rhytisma, Septoria, Taphrina,* and *Venturia* can each cause leaf spot diseases of several different trees. Other fungi causing leaf spots include the anthracnose fungi, powdery mildews, and rust fungi. Bacteria such as *Pseudomonas* and *Xanthomonas* also cause leaf spots.

Control. a) Rake up and destroy or thoroughly compost diseased leaves. This should be sufficient for the vast majority of leaf spots. b) Use disease resistant cultivars wherever possible. There are many excellent cultivars of flowering crabapple that are resistant to scab, for example. c) Provide good growing conditions for trees in the landscape. Some leaf spot diseases such as Actinopelte leaf spot of oak attack trees under stress. d) Fungicides, in certain circumstances, can be used for disease control. Fungicide sprays might be considered for a valuable specimen tree with a history of leaf spot disease detrimental to the health of the tree which, despite good cultural practices, continues to suffer. There are a wide range of fungicides that control the various leaf spots of trees. Choice, timing, and coverage are important. Follow fungicide labels and use only those that are cleared for the tree and the disease listed. Be sure that the spray equipment that is being used thoroughly covers all surfaces of the foliage.

DIAGNOSTIC LAB - HIGHLIGHTS

by Julie Beale and Paul Bachi

Only a few samples have arrived in the Diagnostic Laboratory so far this month, although we have had several questions about **declining** pine trees, particularly **white pines**. Unfortunately, the occurrence of decline that develops rapidly on individual trees is not uncommon in Kentucky on white pine (even on established stands up to 15 yrs.), especially in clay soils. White pines grow the best in deep, well drained, sandy soil. In many cases

heavy soil conditions and periods of excess rainfall are the main factors that have caused decline. We have observed a scattered pattern to this problem and the decline of one white pine does not mean that other pines nearby will decline.

We have also begun to see **powdery mildew** on **greenhouse tomatoes**. This is the result of humid

conditions; therefore, managing the greenhouse environment is crucial in preventing/controlling this disease. Spray recommendations for foliar diseases of greenhouse tomatoes (listed in *ID-36*) are appropriate for control of powdery mildew.

PESTICIDE NEWS AND VIEWS

by Monte P. Johnson

Unwanted Pesticides Collection and Disposal Program Update

The Kentucky Department of Agriculture collected 109,193 pounds of unwanted, outdated or banned chemicals from landowners in 1997 through the Unwanted Pesticides Collection and Disposal Program. This program is available at no cost to farmers and landowners to safely dispose of pesticides that they no longer can use. By contacting the Department of Agriculture via a tollfree number, 1-800-205-6543, interested parties can request an inspector come to the farm to pick up and dispose of pesticide(s). Identifiable pesticides are overpacked and sent to a secure storage facility. Inspectors will advise farmers on safely retaining any unknown pesticides or unaccepted chemicals. These chemicals will be overpacked for long-term safe storage on the farm. (KFACA News, December 1997).

DuPont Labels and MSDSs Available on Internet

DuPont labels and MSDSs can be accessed by logging in at www:aginfo.com or

www:dupont.com/ag. Adobe Acrobat Reader is required to read, print and search the labels and MSDSs. If you don't have this software, you can download a free copy without leaving the site (requires 1.5 MB space on your hard drive). This

information is also available 24 hours a day, seven days a week, by dialing 1-800-685-9542. By prompting the electronic answering service with the specific MSDS sheets or label codes, the most current product information will be faxed to you within 60 seconds. (DuPont Vegetation Manager, Fall 1997).

National Agricultural Pesticide Impact Assessment Program Has New Home Page

The National Agricultural Pesticide Impact Assessment Program has developed a new home page at the following location on the World Wide Web: http://ipmwww.ncsu.edu/usdanapiap/ It was developed and will be maintained at North Carolina State University. Types of information to be found there include personnel updates, links to web sites for state and regional programs, educational facts, meeting locations and dates, etc.

Pesticide Industry Sales and Usage Estimates

The "Pesticide Industry Sales and Usage: 1994 and

1995 Market estimates" can now be found on the EPA Website at the following URL: http://www.epa.gov/oppbeadl/95pestsales.pdf

Ten Synthetic Pyrethroid Insecticides Meet FQPA Safety Standards

EPA reviewed 273 tolerances for a group of ten synthetic pyrethroid insecticides in the largest pesticide tolerance assessment since the inception of the Food Quality Protection Act (FQPA) of 1996. The class of ten insecticides include bifenthrin, cyfluthrin, cypermethrin, zeta-cypermethrin, deltamethrin, esfenvalerate, fenpropathrin, lambda-cyhalothrin, tralomethrin, and tefluthrin. New FQPA-mandated regulations required EPA to perform complete assessments of all tolerances before renewing the chemicals' conditional registrations, and to include assessments of the aggregate risks from dietary exposure, exposure in drinking water, and exposure through residential use, for which some of these insecticides are registered. Major agricultural crop uses include cotton, corn, sorghum, rice, wheat, citrus, and alfalfa. All tolerance levels of the ten pyrethroids, both time-limited and permanent, were assessed. All met the new FQPA safety standards; their tolerance levels remain unchanged, and all time-limits were removed. Pyrethroids constitute the major alternatives to the acutely-toxic organophosphates and carbamates. This group of ten pyrethroids were granted 3-year conditional registrations because EPA has not yet completed its assessment of potential risks to aquatic invertebrates and fish. Aquatic mitigation measures continue to restrict pyrethroid uses that could involve exposure to aquatic organisms. EPA expects to develop and refine these measures once the aquatic risk assessment is completed. (EPA Press Release, Dec. 12, 1997)

Lee H. Townsend Extension Entomologist