

KENTUCKY PEST NEWS

ENTOMOLOGY • PLANT PATHOLOGY • WEED SCIENCE

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Number 1171

July 21, 2008

WATCH FOR TOBACCO

- Disease update for the week of July 21
- Check tobacco barns for hornets and bumble bees before housing crop

SOYBEAN

- Soybean Aphid: little threat expected in Kentucky in 2008

VEGETABLES

- Spider mites on vegetables

LAWN & TURF

- Cicada killer alert

DIAGNOSTIC LAB-HIGHLIGHTS

INSECT TRAP COUNTS

WATCH FOR

“FLAGGING” or hanging dead tips of twigs from earlier **PERIODICAL CICADA** egg laying activity; **LONE STAR TICK LARVAE (SEED TICKS)** picked up while in woods or overgrown areas; **GREEN JUNE BEETLES** cruising over lawns and feeding on fruits and vegetables; **FALL WEBWORM TENTS** at ends of branches on a variety of trees; **MILLIPEDES** invading homes in some areas; **WASP** and **YELLOWJACKET** nests becoming more noticeable; **FOREIGN GRAIN BEETLES** should be active in newer homes soon.

TOBACCO

DISEASE UPDATE FOR THE WEEK OF JULY 21 by Kenny Seebold

Kentucky continues to dodge the blue mold outbreak that is now present in FL, GA, PA, and VA. On July 15, a new case of blue mold was discovered in southwestern VA, near Glade Spring. Symptoms were estimated to affect about 40% of a 4.5 acre field. This recent discovery brings blue mold fairly close to the southeastern edge of KY; however, recent weather patterns have not favored movement of inoculum into our area.

At the moment, our threat from blue mold is fairly low in KY. Inoculum from existing sources south of the Commonwealth has not, in all likelihood, moved across tobacco production areas in our state. Despite the low risk we are enjoying at the moment, continued monitoring of tobacco for signs and symptoms of blue mold is recommended. The weather for the week of July 21 will continue to be warm-to-hot, with moderate chances of showers. Depending upon the location, and the amount of precipitation that is received, conditions could be slightly favorable for development of blue mold if

inoculum is introduced into KY. Acrobat or its liquid counterpart, Forum, can be applied preventively if and when blue mold appears. These fungicides must be tank-mixed with the EBDC fungicides Dithane DF or Manzate

ProStick; we have also received an additional 24c exemption that permits the use of another EBDC fungicide, Penncozeb 75DF. Use rates and recommendations are identical for Dithane DF, Manzate ProStick, and Penncozeb 75DF. Consult your local Extension agent or chemical supplier for more information.

The week of July 14 saw an increase in the number of cases of black shank being reported. I have also seen higher-than-normal amounts of symptoms of alfalfa mosaic and tobacco ringspot around the state. We are starting to see fields with a low incidence of target spot. Keep in mind that Quadris can be applied up to the day of harvest for management of target spot, as well as blue mold and frogeye leaf spot. An application of Quadris could be warranted in areas where disease has been severe in the past, or where significant spotting has been found in the lower canopy prior to topping.

For more information, visit the KY Tobacco Disease Information Page online at www.uky.edu/Ag/kpn/kyblue/kyblue.htm.

CHECK TOBACCO BARNs FOR HORNETS AND BUMBLE BEES BEFORE HOUSING CROP by Lee Townsend

Paper wasps, hornets and yellowjackets, and bumble bees often nest in and around barns but also can occur in some unexpected places. You may even find a nest was discovered in the hollow tongue of a wagon. In addition to painful stings, people working high up on rails in a

barn can be injured as they try to escape these angry insects. As if this were not enough, some people can have a severe allergic reaction to the venom of these insects. Wasps, hornets and yellowjackets are more dangerous and unpredictable than honey bees and should be treated with respect; nests should be eliminated with great care and in a specific manner.

Paper wasps, hornets and yellowjackets construct nests of a paper-like material which is a mixture of finely chewed wood fragments and salivary secretions of the wasps. Paper wasps typically build their umbrella-shaped nests under eaves and ledges. These wasps are not as aggressive as yellowjackets or hornets, and can be eliminated rather easily with a wasp and hornet spray sold at most grocery and hardware stores. These formulations have an added advantage in that they often spray as far as 20 feet.

Treatment of wasps, hornets, and yellowjackets is best performed at night; paper wasps can be eliminated during the daytime provided you do not stand directly below the nest during treatment. Most wasp and hornet sprays cause insects to drop instantly when contacted by the insecticide. Standing directly below a nest increases one's risk of being stung. Following treatment, wait a day to ensure that the colony is destroyed, then scrape or knock down the nest. This will prevent secondary problems from carpet beetles, ants and other scavenging insects.

Hornets are far more difficult and dangerous to control than paper wasps. The nests resemble a large, inverted tear-drop shaped ball which typically is attached to a tree, bush or side of a building. Hornet nests may contain thousands of wasps which are extremely aggressive when disturbed. Treatment can be accomplished by applying a wasp freeze-type, aerosol insecticide or dust formulation (Sevin) directly into the nest opening.

Hornet nests have a single opening, usually toward the bottom, where the wasps enter and exit. It is essential that the paper envelope of the nest not be broken open during treatment or the irritated wasps will scatter in all directions, causing even greater problems. Following treatment, wait at least a day before removing the nest to ensure that all of the wasps are killed. If hornets continue to be observed, the application may need to be repeated.

Bumble bees can nest in small piles of hay, paper, or other similar materials, usually at ground level. Look for activity around the barn and deal with it before the rush of housing begins.

SOYBEAN

SOYBEAN APHID: LITTLE THREAT EXPECTED IN KENTUCKY IN 2008

by Doug Johnson

It is about this time in the soybean production year that we in Kentucky begin to think in earnest about the possibility of soybean aphid in our fields. This year it appears that there is a very low risk of any wide spread economic damage by this pest. However, one cannot completely rule out the occurrence of a damaging population in an individual field. It is always recommended that soybean be scouted for insects, disease, and weeds routinely throughout the growing season.

Thus far in 2008, only one find of soybean aphids has been reported from the Kentucky Soybean Aphid / Rust sentinel plots. Additionally to date, only a very few soybean aphids have been captured in the regional aphid suction trap system. None of these were from the two traps in Kentucky (Caldwell and Fayette Counties), nor any of our contiguous states. As well, this was predicted to be a "down" year for the aphid over the entire US production area based on the biannually fluctuating populations since 2000. These indicators in conjunction with the fact that soybean aphid has not proved to be of economic importance in Kentucky since it's discover in 2000, bode well for our soybeans.

Nevertheless, the soybean aphid is likely to be in Kentucky at some point in this season. We have observed these aphids in Kentucky every year since its introduction. So, we do have the pest, and thus the possibility of an important infestation must be considered. Producers, consultants, and scouts are advised to examine soybean fields for these and other pests on a regular basis.

If past history serves us, then we are likely to see more and larger populations in the I-65 corridor than in far western Kentucky, and larger populations on late planted / late maturing soybeans. Timely planted full season beans generally escape infestation.

It still appears that Kentucky does not have sufficient overwintering hosts for this insect to get an early start in the state thus our infestations are likely due to aphids migrating in from further north. As well, the pest seems to be more adapted to cooler temperatures than our normal summer. It is likely that the very hot summer in our major production areas reduces the aphids' ability to reproduce. Because of the aphids' large reproductive potential and strong ability to adapt, we may at some point see a change in these limits. As of now however, this

does not seem to be the case. Damage from this insect cannot be dismissed, but it certainly should be the only focus of insect scouting activity.

VEGETABLES

SPIDER MITES ON VEGETABLES

by Ric Bessin

Hot dry conditions can lead to some specific pest problems. Two-spotted spider mite is a common pest of several vegetable crops during prolonged hot and dry periods. This pest rapidly builds in numbers during hot dry weather and some pesticides used to control insect pests may reduce the natural enemies that help to keep it below economic levels. Mites can injure tomatoes, beans, muskmelons, watermelons, and sweet corn. Infestations usually first occur at the edge of a field, typically near rank weed growth or dirt roads. There have been reports of high numbers this summer in some surrounding states.

Generally mites feed on the undersides of leaves. They use their sucking mouthparts to remove sap from plants, giving the upper leaf surface a speckled or mottled appearance. Leaves of mite-infested plants may turn yellow and dry up, and plants may lose vigor and die when infestations are severe. The undersides of affected leaves appear tan or yellow and have a crusty texture. Heavy infestations of the two-spotted spider mite produce fine webbing which may cover the entire plant. Mites can be identified by shaking leaves onto a sheet of white paper or by observing leaf areas with a hand lens. In hot dry weather, mites can cause plants to drop leaves in a few weeks. Fruit from severely infected plants are often unmarketable because defoliated plants tend to yield small, poor quality fruit.

The eight-legged female mites are yellow to dark green with two to four dark dorsal spots. At 1/60 of an inch, they are almost microscopic. Males are smaller with more pointed abdomens. The tiny, spherical, eggs are laid on the undersides of leaves, often under the webbing produced by the mites. Under optimum conditions of high temperature and low humidity, the life cycle may be completed in 7 days. Females can lay 200 eggs.

Natural enemies of mites are present in and around fields and usually can keep mite populations low. Many insecticides used for control of insect pests severely reduce numbers of beneficial insects that keep mite populations in check. Therefore, apply insecticides only as-needed, rather than at regularly scheduled intervals. When possible, select pesticides which will have the least impact on beneficial insects.

Destruction of weeds adjacent to and in fields should be done in the fall or early spring. Growers should manage

weeds around fields carefully during the season. Grass should be mowed regularly. Spraying or mowing of weeds after growth has become rank may increase the movement of mites to cultivated plants.

Use of overhead-sprinkler irrigation may provide some short-term relief of mite infestations.

Miticides are available for some vegetable crops but should be used only where justified. As with aphids, mark infestations with flags, and check them again every 3 or 4 days. Mites can easily be moved to infested plants on clothing, so always examine infested areas last during inspections. If the infestation is not spreading, treatment will not be required. Because mite populations often are localized, spot spraying may be effective. If you spray only a portion of the field, spray a buffer zone of 100 to 200 feet beyond the mite infested area.

Resistance to pesticides has increased the difficulty of controlling of these pests. Because mites primarily occur on the undersides of leaves, applications of contact miticides need to be directed at both the lower and upper leaf surfaces. Mite eggs are resistant to some miticides, so repeated applications are often necessary to control infestations. Two applications spaced 5 to 7 days apart may be necessary with some miticides. See ID-36, 2008-2009 Vegetable Production Guide for Commercial Growers, for a complete list of available miticides for vegetable crops.

LAWN & TURF

CICADA KILLER ALERT

by Mike Potter

Cicada killers have been flying about and burrowing into lawns, gardens and play areas, prompting many calls from homeowners. Despite their menacing appearance (up to 2 inches long with rusty red head/thorax, amber-yellow wings, and black and yellow striped abdomen), the wasps seldom sting unless provoked.

Biology - Cicada killers do not live in communal nests like hornets or yellowjackets. They overwinter as larvae within cocoons deep in the soil, emerging as adults during July. The females feed, mate, and excavate burrows in the ground about 1/2 inch in diameter, ending in a series of brood chambers. Bare ground or sand is especially prone to infestation. Excess soil is pushed out of the burrow, leaving a mound of dirt at the entrance. Each female excavates numerous burrows and provisions them with adult cicadas which she ambushes, paralyzes with her venom, and stuffs into individual brood chambers. She then lays an egg on top, backs out, and seals the cell behind her. The egg hatches within a few days and the

hungry larva devours the offering, eventually transforming into an adult the following summer.

Management - Cicada killers seldom sting and the females normally do not defend their burrows. The males, while incapable of stinging, sometimes dive-bomb passers-by, or hover menacingly nearby. Insecticide treatment may be warranted where the soil burrows become unsightly, or the wasps are digging in a high-traffic area such as along a sidewalk, playground, or sand trap on a golf course. Individual burrows can be effectively sprayed or dusted with most lawn & garden insecticides (Sevin, Bayer Advanced Lawn & Garden Multi-Insect Killer, Spectracide Triazicide Soil & Turf Insect Killer, etc.), or a wasp & hornet aerosol. Multiple nests may need to be treated with a broadcast application to the ground surface, using a pump up or hose-end sprayer.

As a deterrent to future nesting, clients should be advised to eliminate bare-ground areas. Cicada killers generally do not prefer burrowing into well-managed turf, gravel, pebbles or mulch. In situations such as playgrounds, camping areas, or commercial landscapes, these materials may be substituted for sand or bare soil. Another option is to wait and do nothing — in a matter of weeks the adults will die off and there's a chance the problem will not reoccur next year.

DIAGNOSTIC LAB-HIGHLIGHTS

by Julie Beale and Paul Bachi

During the past week, the PDDL received samples of boron deficiency on alfalfa; potassium and nitrogen deficiencies, and Phytophthora root/stem rot on soybean; black shank, Fusarium wilt, black root rot, root knot nematode, flooding damage, manganese toxicity and several viruses (alfalfa mosaic, tobacco ringspot, tobacco streak, tomato spotted wilt) on tobacco.

On fruits and vegetables, we diagnosed black rot on grape; bitter rot on apple; anthracnose, southern blight and growth regulator injury on bean; potassium deficiency on sweet corn; anthracnose on cucumber; scab on potato; bacterial spot on pepper; bacterial canker, Septoria leaf spot, early blight and blossom end rot on tomato.

On ornamentals and turf, we have seen Pythium root rot on chrysanthemum; bacterial spot on zinnia; Rhizoctonia root rot on petunia; black root rot on holly; lacebug on azalea; tip blight on pine; cicada injury and transplant shock symptoms on various woody ornamentals; Pythium blight on fescue as well as Pythium root dysfunction on both fescue and bentgrass.

INSECT TRAP COUNTS

July 11-18, 2008

► Princeton, KY

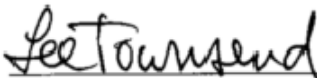
Black cutworm	19
True armyworm.....	129
Corn earworm.....	97
European corn borer	3
Southwestern corn borer	13
Fall armyworm.....	4

► Lexington, KY

Black cutworm	3
True armyworm.....	644
Corn earworm.....	10
European corn borer	0
Southwestern corn borer	0
Fall armyworm.....	0

Graphs of insect trap counts are available on the IPM web site at -<http://www.uky.edu/Ag/IPM/ipm.htm>.

View trap counts for Fulton County, Kentucky at - <http://ces.ca.uky.edu/fulton/anr/>


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