

WHAT'S HAPPENING

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ENTOMOLOGY AND PLANT PATHOLOGY—EPP#60

Tobacco Scouting Report No. 6

By Gene Burgess

Sumner County, Melissa Edwards, Intern

Scouted Field: A few flea beetles and two cutworms were found. Some infestations of common purslane and pigweed were observed.

Macon County, Terra Kimes, Intern

Scouted Field: A few budworms, some black shank and a few weeds, such as ragweed and Johnsongrass, were observed. Some hail and wind damage had occurred.

Hawkins County, Michael Matthews, Intern

Scouted Field: A few flea beetles and stink bugs were found. A few plants had black shank. Some Johnsongrass was observed.

Demonstration Field: A few flea beetles were found in the Admire Pro, Platinum and Orthene plots.

Robertson County, Brad Wilks, Intern

Scouted Field & Demonstration Field: No real problems were found in the scouted field or demonstration plots. One budworm and some budworm damage were found. Some pigweed was observed.

Inside this issue:

| | |
|--|-----|
| Tobacco Scouting Report 7 | 2 |
| A Tool to Aid Soybean Producers | 2-3 |
| Avoiding Brown Recluse Bites and Actions to Take After a Bite | 3-4 |
| Plant and Pest Diagnostic Highlights | 5-7 |
| Other Pest Management Newsletters | 8 |

Tobacco Scouting Report No. 7

By Gene Burgess

Hawkins County, Michael Matthews, Intern

Scouted Field: The tobacco has been set for 57 days and looking good. A little common cocklebur, curly dock and Johnsongrass were observed. Herbicide injury was observed on one plant.

Demonstration Field: Budworms were observed in the Platinum plot. A few hornworms were found. The farmer had recently sprayed the field with Orthene.

Sumner County, Melissa Edwards, Intern

Scouted Field: A few flea beetles were found. Some common purslane and pigweed were observed in the field.

Robertson County, Brad Wilks, Intern

Scouted Fields: The fields had recently been sprayed with Orthene. There was no insect pests observed. Evidence of some budworm activity was present. Some crabgrass and pigweed were observed.

Demonstration Plots: These plots had no insects. It had recently been sprayed with Warrior and Orthene. There was some irregularity in tobacco was noticed.

Loudon County, Jessica Harris, Intern

Scouted Field: Two parasitized horn worms were found. A lot of plants had nitrogen deficiency. No more damage was observed from budworms or hornworms. Some viruses and nutrient deficiencies were observed. A little broadleaf signalgrass was present.

A Tool to Aid Soybean Producers

By Darrell Hensley

The BASF company recently announced their partnership with the American Soybean Association (ASA) and Doane Advisory Services. The partnership will help aid soybean producers in the U.S. by providing a new educational and alert system named SoyRAP. The web site is located at: www.soyrap.com. BASF, among several companies, had previously been a co-sponsor of the web site for several years.

SoyRAP is the foremost web site for advice about the prevention of Asian soybean rust and treatment of soybean aphids. It utilizes a nationwide network of crop consultants who monitor the progression of confirmed soybean rust outbreaks in the U.S., and it provides

Continued from page 2

growers with fungicide and insecticide application recommendations based on regional analysis.

SoyRAP provides growers with an important and up-to-date resource to help maintain a healthy crop. In addition to USDA scouting reports and the latest marketing reports, SoyRAP will feature educational information and research about disease management and crop protection tools for soybean growers.

Avoiding Brown Recluse Bites and Actions to Take After a Bite

By Karen Vail

The brown recluse spider is a light to medium brown spider, although color may vary somewhat. The cephalothorax is round and the second pair of legs are longer than the remaining pairs. Three pairs of eyes are arranged in a semicircle at the base of a violin-shaped marking, but many other spiders have a violin-shaped marking. **Since most other spiders have eight eyes, the eye configuration alone can eliminate many specimens suspected of being a brown recluse spider.** Although there is much concern about brown recluse bites, according to Anderson (1998), "Almost all brown recluse spider bites heal nicely in two to three months without medical treatment at all."

Brown recluse bite description

Often initially painless, the bite wound starts with a central pimple and produces an irregular red skin reaction in 6-12 hours. Initially the lesion may hurt or itch, but then the affected area may become a blister and/or dead skin. Case reports of blood abnormalities, kidney failure or death have been recorded, although it is estimated that less than 1% of cases go systemic. Death is rare. I don't believe brown recluse spider identification has ever been confirmed in any of the North American deaths suspected of being caused by this spider. Numerous other diseases, vasculitis, skin infections and other causes have been misdiagnosed as brown recluse spider bites.

Avoiding brown recluse bites around the home

Most bites occur when the spider is pressed against the skin inside clothing or when rolled on in bed. To minimize bites in homes where brown recluse is present:

1. store clothing in sealed plastic bags or storage boxes,
2. store shoes in plastic shoe boxes,
3. shake clothing and shoes before wearing,
4. move beds away from walls or curtains,
5. remove bed skirts from box springs,
6. do not use bedspreads that touch or come close to the floor,
7. inspect bedding before climbing into bed,
8. place glueboards under each bedpost, and
9. wear long sleeves and gloves when reducing harborage and other conducive conditions.

Continued from page 3

Avoiding brown recluse bites in laboratories and other workplaces

Because most bites occur when the spider is trapped against the skin, all containers and other objects should be observed for spiders before being touched. Place glueboards where two surfaces intersect and under desk or table legs. Check glueboards regularly for spiders. Open drawers so materials are visible before reaching into the drawer. Never reach blindly into any voids. Lab coats, footwear and other materials should be shaken, as appropriate, to dislodge any spiders before using them. If footwear is removed while sitting at a desk, tap the shoe to dislodge spiders before inserting foot.

Actions to be taken in the event of a bite

Firmly place ice on the wound and elevate the wound.

Seek medical assistance.

Find a cool place to rest until receiving medical assistance. Do not become excited or move about.

Brown recluse spider bite treatment

The following description was modified by Saralyn R. Williams, Vanderbilt University Medical Center, Nashville, Tennessee.

The treatment of brown recluse spider bites is largely conservative. Ice packs and elevation may reduce the pain from the bites. Antihistamines can be used for itching and analgesics for pain control. Antibiotics are not routinely needed as prophylaxis for secondary infections. Tetanus toxoid should be updated as needed. In animal models of brown recluse spider envenomations, administration of dapsons, steroids, or antihistamines did not change the clinical outcome of the wound. Excising the bite site acutely should be avoided since the inflammatory reaction produced by the venom will inhibit wound healing and produce inferior clinical results. Plastic surgical procedures can be helpful for reconstructing the wound site after the active phase of tissue damage has been completed. This may take up to 20 weeks.

More information on brown recluse identification, bite management and pest management can be found in the sources used for this article.

Anderson, P. C. 1998. Missouri brown recluse spider: a review and update. *Missouri Medicine* 95: 318-322.

Edwards, G.B. 2008. Brown Recluse Spider, *Loxosceles reclusa* Gertsch and Mulaik (Arachnida: Araneae: Sicariidae). University of Florida IFAS Extension EENY299.

<http://edis.ifas.ufl.edu/pdffiles/IN/IN57600.pdf>

Vetter, R. UCR Spider Research Website. <http://spiders.ucr.edu/>

Vail, K.M., H.W. Williams and J.A. Watson. 2002. PB1191. The Brown Recluse Spider. The University of Tennessee Extension. <http://www.utextension.utk.edu/publications/pbfiles/pb1191.pdf>

Plant & Pest Diagnostic Highlights

By Bruce Kauffman

We received 215 samples from July 3 to July 27, 2009, including 102 samples via the UT Diagnostic Web Site.

FIELD CROPS : Symptoms of fusarium root rot of corn; potassium deficiency, possible soil compaction, root nodulation, herbicide and seed treatment problems and phyllosticta leaf spot of soybeans; over nitrogen fertilization of dark tobacco; frog-eye leaf spot and possible phytophthora seedling blight of soybean; possible tobacco etch virus of dark tobacco;

FRUIT & VEGETABLES : Environmental conditions during fruit set and/or high nitrogen fertilization causing fruit abnormalities of tomato; phomopsis twig blight, possible botryosphaeria canker and possible cercospora leaf spot of blueberry; site and fertility-caused decline of blueberry; pythium root rot and pH problem of peppers; leaf mold (*Cladosporium sp.*), low pH, possible septoria and bacterial leaf spot infection of tomato leaves; late blight of tomato; possible phenoxy herbicide damage to blackberry; possible fusarium wilt of sweet potato and watermelon; pH and/or fertility issues with snap beans; bacterial spot of peach; possible low pH of cantaloupe; alternaria leaf spot of muskmelon; common scab bacterial disease of potato; physiological leaf curl and tomato spotted wilt virus of tomato; hot, dry weather stress of apricot; possible magnesium deficiency of grape; alternaria leaf spot of gourds; low pH of sweet corn; brown rot of peach; fusarium wilt or crown rot of tomato; possible pH problem of watermelon; early blight of tomato; possible bacterial wilt of cantaloupe; anthracnose on muscadine leaves;

INSECTS, CRUSTACEANS & MITES : Gall wasp leaf swelling on pin oak; jumping oak gall of post oak leaves; one of the oak petiole gall wasps (*Andricus sp.*) on chestnut oak; oak lecanium scale and some spider mites on willow oak; soft scales and rose sawflies on rose; pine sawyers in pine; woolly pine scale (*Pseudophilippia quaintancii*) of loblolly pine; leaf-feeding damage to deciduous magnolia; bagworms on arborvitae; stem borers of stressed Bradford pear; possible borers of flowering dogwood; root mealybugs of soybeans; southern red mite feeding on azalea; euonymus scale on euonymus; squash bug eggs, harlequin bugs and stink bug nymphs on garden plants; spider mite damage of peony; possible eriophyid mite feeding on beech leaves; serpentine leaf miner (*Phyllocnistis liriodendrella*) on tulip poplar; green fruitworm feeding on apple fruit; tarnished plant bug and stink bug feeding on apple and pear fruit; carrion beetle; Mexican bean beetle feeding on butter bean leaves; sunflower stem weevil boring down stem; termites feeding on dead cypress roots; oak bullet galls caused by gall wasp; hawthorn lace bug on cotoneaster; possible borers of cherry; backswimmers in pool; soft sales causing elaeagnus; elm aphid leaf gall; rose chafer feeding on blackgum leaves.

Insects and other pests around the home : Drugstore beetles; cellar spider; leafhopper; acrobat ants; insect parasitic wasps; pleasing fungus beetle; daddy-long-legs; big-eyed

Continued from page 5

click beetle; honey bees; eastern dobsonfly; spider wasp; pinching stag beetle; brown recluse spider; funnel spider.

ORNAMENTALS & TREES : Phytophthora collar rot of oak seedlings; twig dieback and tubakai leaf spot of pin oak due to 2007 drought; anthracnose leaf blotches and tubakai leaf spot of post oak; possible iron chlorosis and water stress-induced leaf scorch of willow oak; powdery mildew and black spot of rose; drought-killed pine; possible site moisture or fertility problems of deciduous magnolia; powdery mildew, spot anthracnose, seasonal non-infectious leaf blotches and twig dieback due to dry weather, root decline and high soil pH of flowering dogwood; possible phenoxy herbicide damage to pin oak; frost damage to southern red oak; possible virus or 2,4- D damage of black oak; possible root decline symptoms of stressed Bradford pear; tubakai leaf spot of newly-planted swamp white oak; possible root-caused stress and anthracnose leaf disease of oak; possible seiridium canker, stress due to tree competition or transplant shock mechanical damage and pestalotia twig blight of Leyland cypress; phytophthora root rot of 'Emerald Green' arborvitae, 'Wave' and 'Million Bell' petunias and 'Knockout' rose ; improper planting causing death of Canaan fir; diplodia twig blight of Austrian pine; fire blight of Bradford pear; symptoms of tree dieback due to root or stem disease of sweetgum; possible overly wet site affecting roots causing cherry and holly dieback; rose rosette of 'Knockout' rose; southern blight (*Sclerotium rolfsii*) of Lenten rose; charcoal root rot (*Macrophomina* sp) of dahlia; hot, dry weather causing leaf drop of willow; Dutch elm disease of elm; symptoms of anthracnose leaf spot and yellowing on river birch; overly wet or dry site causing branch dieback of boxwood; entomosporium leaf spot of photinia and Cleveland pear; hydrophobic root ball causing death of roots of *Ilex compacta*; slime mold on dead leaves, mulch and liriopse; rhizoctonia stem rot of wax-leaf begonia; euonymus scale of ligustrum; dieback of euonymus seedlings due to greenhouse temperatures and cultural practices; pythium root rot of hardy chrysanthemums 'Diana'; damaged and/or stressed leaves with secondary bacterial infection of chrysanthemums 'Monica'; possible winter damage and botryosphaeria canker of crape myrtle; possible leaf scab and the beginning of willow blight of 'Corkscrew' willow; leucostoma canker and botryosphaeria canker and decline of English laurel due to overly wet or overly dry soil; lichens on dead hardwood branches; cedar-apple rust of juniper; fusarium twig blight of 'Bar Harbor' juniper; kabatina and pestalotia twig blight and fusarium stem blight of eastern redcedar; possible phytophthora root rot of Blue Sea, Blue Pacific and Nana Procumbens junipers; leaf spot of canna 'Tropical Red'; mechanical damage of cryptomeria 'Yoshina'; possible botryosphaeria canker of mechanically damaged Leyland cypress; dry weather-caused and poor soils and compaction-caused root decline nitrogen deficiency of silver maple; anthracnose and coniothyrium leaf spot and root decline causing nitrogen deficiency of silver maple; possible calcium carbonate residue on Japanese maples from water source; dry weather stress of maple and tulip poplar; root decline and/or canker disease of red maple; powdery mildew of euonymus and oak; verticillium wilt or phytophthora basal canker of maple; possible leaf curl virus of peony; possible nutrient deficiency of striped maple; oak decline and stress from root system loss; possible wilt an/or bacterial wetwood infection of mimosa; shothole fungus disease of 'Cosmo'cherry; poor site for southern magnolia; decline of over mature river birch; possible water stress and eriophyid mite of oak seedlings; oyster mushroom causing decay of sugar maple; volutella twig canker and/or dieback due to an overly wet site for boxwoods;

Continued from page 6

possible bacterial blight of 'Miss Kim' lilac; black canker killing branches of willow; bacterial spot of basil; fungal canker of Lombardy poplar; cold weather damage to holly leaves; cedar-quince rust of hawthorn; anthracnose leaf blight of English walnut; wood decay fungus of hardwood firewood; dry weather effects or bacterial leaf scorch of oak; water stress and/or planting shock of 'Crimson' maple; possible canker disease of cherry; overly wet site for liriopse and papaw; pseudocercospora leaf spot of redbud.

TURF & FORAGES : Possible nematodes, root disease, winter injury and/or nutrient of 'El Toro' zoysiagrass; organic mat inhibiting water and oxygen in bentgrass; fescue lightly infected with fungal endophyte disease; hot weather killing Kentucky bluegrass; dieback of bermudagrass caused by cultural practices; fairy ring disease of bermudagrass and fescue; possible root nodulation problems and nutrient deficiency of alfalfa; head smut of bermudagrass; dollar spot of bermudagrass.

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Visit the UT Extension Web site at
<http://www.utextension.utk.edu>

OTHER UT NEWSLETTERS WITH PEST MANAGEMENT INFORMATION

Fruit Pest News

<http://web.utk.edu/~extepp/fpn/fpn.htm>

Tennessee Crop and Pest Management Newsletter

http://www.utextension.utk.edu/fieldCrops/cotton/cotton_insects/ipmnewsletters.htm

Ornamental Pest and Disease Update

<http://soilplantandpest.utk.edu/publications/ornamentalnwsltr.html>

School IPM Newsletter

<http://schoolipm.utk.edu>

Tennessee Soybean Rust Hotline - 877-875-2326

USDA Soybean Rust Web Site

<http://www.sbrusa.net>

Pesticide Safety Education Program, PSEP

<http://PSEP.utk.edu>

IPM & Pest Management

<http://eppserver.ag.utk.edu/Extension/TN-PMIN/FYI/FYI.html>

Entomology and Plant Pathology Web Site

<http://eppserver.ag.utk.edu>

This and other "What's Happening" issues can be found at

<http://eppserver.ag.utk.edu/Whats/whatshap.htm>

Precautionary Statement

To protect people and the environment, pesticides should be used safely. This is everyone's responsibility, especially the user. Read and follow label directions carefully before you buy, mix, apply, store or dispose of a pesticide. According to laws regulating pesticides, they must be used only as directed by the label.

Disclaimer

This publication contains pesticide recommendations that are subject to change at any time. The recommendations in this publication are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. The label always takes precedence over the recommendations found in this publication.

Use of trade or brand names in this publication is for clarity and information; it does not imply approval of the product to the exclusion of others that may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product. The author(s), the University of Tennessee Institute of Agriculture and University of Tennessee Extension assume no liability resulting from the use of these recommendations.

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