

WHAT'S HAPPENING

Volume 24, Issue 6

May 16, 2008

ENTOMOLOGY AND PLANT PATHOLOGY EPP#60

Eek! Bird Mites!

By Karen Vail



What are bird mites? Bird mites are bloodsucking ectoparasites that are normally found on birds or in their nest. When a bird dies, the fledglings fly, or the nest is otherwise abandoned, the mites may migrate into buildings. Heavy rains may also cause mites to migrate into homes. Rain may flood nests built in eaves or gutters and kill the nestlings. Once their host is dead or gone, the mites seek an alternate food source. It's often the itching and irritation caused by these bites that alerts the building's occupants to the mites' presence. However, these mites are visible with the naked eye. They are often described to be as large as a period at the end of a sentence. Some bird mites are closely related to rodent mites and can only be distinguished by a trained taxonomist.

How do I control bird mites? To control bird mites, the bird, droppings and nest should be removed. Care must be taken to avoid inhaling dust from bird droppings. Lightly moisten the droppings prior to removal to prevent the fungus causing histoplasmosis and other disease-causing agents from becoming airborne. A respirator and gloves should be used when removing nests, droppings and birds. The Centers for Disease Control and Prevention provide guidance to safely remove guano (<http://www.cdc.gov/niosh/docs/2005-109/>). Nests are often found in attics, chimneys, eaves, rafters and gutters or down spouts. Details on removing and excluding birds from structures can be found in PB1624, *Controlling Pesky Critters Around Your Home* (<http://www.utextension.utk.edu/publications/pbfiles/pb1624.pdf>).

Once the nest is removed, the area can be dusted (synthetic pyrethroids or silica aerogel) or sprayed with a residual insecticide (synthetic pyrethroids). Actually, it may be better to apply pesticides around the nest before it is moved, but the site to be treated must be listed on the label. A space treatment with a nonresidual aerosol insecticide (synergized pyrethrins, etc.) can be used with the residuals. Mites seen crawling along interior surfaces can be removed with a vacuum, or cloth moistened with alcohol, ammonia or other cleaning solutions.

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Washing clothing or bedding in warm/hot water and putting through a hot dryer cycle should kill mites that are present on fabrics such as clothes, bedspreads, sheets and other bedding. A dry, low vapor steam can also be used to clean upholstery, sofas and beds. Bird mites can survive several days to several months without feeding, so an effective control strategy is necessary to prevent building occupants from being bothered by these little critters. However, reproduction, or egg-laying, is limited when the mites are away from a viable host.

I recently received an inquiry about bird mites in a school. The teacher had heard birds in the false ceiling for some time, but the pest management professional was not informed until after the mites started to disperse. Fortunately, it was near the end of the school year so the children were moved to another area of the school while insecticides were applied into the ceiling void and as needed elsewhere and the room was cleaned.

Care should be taken to avoid labeling clients as having “delusory parasitosis” when they complain of itching this time of year, although April is a peak month for this condition (Vail 2006). (“Delusory Parasitosis (DP) is a false, unshakable belief that tiny organisms, such as mites, fleas, or worms, live in or on the skin, or within the body” [Bione and Hinkle 2006, Hinkle 2000]). Poor eyesight may limit their ability to see these mites. Suggest a hand lens or magnifying glass to aid detection. Placing glue boards around edges of walls and other possible areas of mite infestation may allow the occupant to obtain a sample.

The publication, *Invisible Itches: Insect and Non-insect Causes* available at <http://www.ca.uky.edu/agc/pubs/ent/ent58/ent58.pdf> has an extensive discussion on many of the causes of itches. I refer you to this article to help you determine your clients causes of itches - whether they are insect related or not!

Modified from:

Bione, S.E.D. and. N. C. Hinkle. 2006. [Public Health Issue] Invisible Bugs. Pest Control Technology <http://www.pctonline.com/articles/article.asp?ID=2640&AdKeyword=delusory+parasitosis>

Hinkle, N.C. 2000. Delusory parasitosis. American Entomologist 46: 17-25.(This article provides very thorough coverage of the subject).

Potter, Mike. June 6, 1999. Birds, bugs and buildings. Kentucky Pest News Number 849, University of Kentucky.

Vail, K. 1006. “Rash” of delusory/illusory parasitosis cases – can use of a TV monitor in the identification process help? *What's Happening?*” Entomology & Plant Pathology - EPP #60
University of Tennessee Extension. May 4, <http://eppserver.ag.utk.edu/Whats/wh2006/Issue-3-2006.htm>

Photo courtesy: Steve Powell, Tennessee Department of Agriculture and David Cook, Entomology and Plant Pathology, UT.

Spending Time in Uncut Fields and Overgrown Areas? Time for a Lesson in Tick Bite Prevention!

By Karen Vail, Reid Gerhardt, and Carl Jones

If you've been out and about in uncut fields and areas with overgrown vegetation, then you are aware ticks are very active right now. We've been finding adult American dog ticks and lone star ticks as we prepare research plots in a field and wooded area in eastern TN. Here's a quick review of tick-borne diseases and a few tips to prevent bites, remove attached ticks and control them in a yard.

Tick-borne diseases

Rocky Mountain spotted fever is caused by a rickettsia that is the most common tick-transmitted disease agent present in Tennessee. Two hundred and sixty-five cases were reported in Tennessee in 2006. Rocky Mountain spotted fever is characterized by fever, headaches, muscle aches, malaise and a rash that starts on the hands and feet. *Dermacentor variabilis* is the main vector in Tennessee.

Human Monocytic Ehrlichiosis, or HME, is a new disease agent that is probably transmitted by the lone star tick. Twenty-nine cases were reported in Tennessee in 2006. HME has many of the same symptoms as Rocky Mountain Spotted Fever, but usually not the spots or rash. One other Ehrlichial disease has been reported in the United States, Human Granulocytic Ehrlichiosis, which is transmitted by the lone star tick, dog tick, and black legged tick. Generally cases of Ehrlichiosis are treated with antibiotics.

Lyme disease is caused by a spirochete that is transmitted by *Ixodes scapularis*. *I. scapularis* is still rarely encountered in Tennessee, but is becoming more common in certain areas, such as Anderson County. Fifteen Lyme disease cases were reported from Tennessee in 2006. Typical Lyme disease symptoms include fever, headache, fatigue, and a characteristic skin rash. The typical circular skin rash occurs in 70 – 80% of human infections. If the disease is left untreated (generally with antibiotics), infection can spread to joints, the heart, and the nervous system. Lyme disease is more common in the New England states, the upper Midwest, Mid-Atlantic states and California.

Southern tick-associated rash illness, or STARI, symptoms include an expanding, bulls-eye rash similar to that of Lyme disease and occurs following the bite of a lone star tick. The causative agent is not well known. Symptoms may also include fatigue, fever, headache, and muscle and joint pain. Thus far, no chronic, arthritic or neurological symptoms have been attributed to the disease. For up-to-date information on tick-borne diseases, see the Centers for Disease Control and Prevention at www.cdc.gov.

Avoiding Tick Bites

1. The best way to avoid tick bites is to avoid areas where ticks are plentiful. If possible, stay way from wooded and bushy areas with high grass and a lot of leaf litter. If you do enter a tick-infested area, walk in the center of trails to avoid contact with overgrown grass, brush, and leaf litter. Ticks which transmit most of the diseases described above have previously fed on wild animals which have natural infections of the bacteria.
2. Use repellent on clothing. Repellents containing ingredients such as DEET or permethrin (Permanone) applied according to the label instructions to boots, shoes and pants before venturing outdoors will provide some protection. **Do not apply permethrin to skin!** Pants should be tucked into socks or boots to prevent ticks from crawling under the pants and up the leg.



3. Use repellent on exposed skin. DEET may also be applied to skin. Avoid eyes, nose, lips, cuts and scratches and other sensitive areas when using repellents and always apply the repellent according to the label. If repellents are to be used on young children, use products containing up to 30 per cent DEET. Use DEET only on children older than 2 months. If an allergic reaction is suspected from a repellent, wash the area with soap and water and seek medical attention. Other repellents are available but may not be as persistent as DEET. CDC has added new compounds to their list of suggested repellents This (<http://www.cdc.gov/ncidod/dvbid/westnile/RepellentUpdates.htm>) and additional information on repellents can be found at www.cdc.gov.
4. Treat the dog. Consult a veterinarian for products to kill ticks on pets. Products containing fipronil (Frontline) are available from veterinarians to kill ticks on pets. Some are applied as a spot on the pet between the shoulder blades or as a spray. Permethrin sprays and spot-ons also have good activity against ticks. Collars containing amitraz (Preventic® Tick Collar) are another option for tick control on dogs. Insecticides are impregnated into the collar and are spread throughout the pet's hair by grooming. Check the label for the prescribed treatment time. Prolonged use of a tick collar can cause dermatitis under the collar, so check this area for rashes. Discontinue use of a collar if a rash occurs. The number of on-animal, over-the-counter insect control products has increased tremendously in the past few years. Products containing pyrethrin, permethrin and others are available in sprays, and spot-ons. Most of these products are also labeled to treat the dogs' resting areas.

Removal of ticks

The only effective way to remove a tick attached to a person is with a pair of tweezers. Grasp the head region of the tick as close to the skin as possible. Apply firm, steady pressure to remove the embedded mouthparts. Treat as you would any other type of skin wound. Do not crush the removed ticks with either fingers or thumb-nails. Do not attempt to remove ticks with nail polish, alcohol or lighted cigarettes.

Be sure to inform your physician of any tick bite history in the event of illness within one month of a known tick bite. The only practical way to avoid contracting a disease from ticks is to avoid the tick or to remove the tick as soon as possible.

Inspection

People living in or visiting tick-infested areas should inspect themselves, their children and their pets for ticks once or twice a day. Special attention should be given to the hairy parts of the human body as well as areas where clothing fits snugly. The sooner a tick is removed, the smaller the chances for transmitting a disease-causing organism.

Control

Overall, a tick control program should include:

- avoidance of infested areas,
- application of repellent before entering environments that harbor ticks,
- inspection for ticks,
- modification of the environment so it is less conducive to tick survival, and
- if necessary, application of pesticides to pets and areas frequented by pets.

Severe infestations should be treated by a pest control professional.

Modifying the environment around homes: Nonchemical methods for reducing tick problems include mowing the lawn and controlling weeds. These actions provide three advantages: (1) lowers the moisture in the grass microclimate and allows sunlight to penetrate, which tends to cause ticks to dry out; (2) discourages rodents (which may serve as hosts) from nesting; and (3) because there is less plant matter, less pesticide may be needed if a treatment is necessary. Removing debris, wood piles or clutter from around the house also discourages rodents from nesting. Repair entry points into the house to discourage possible tick

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hosts from entering. Cracks and crevices, both indoors and out, can be sealed to reduce hiding places for the tick. Inspect and clean pets and their bedding frequently. If bedding is infested, it should be cleaned or destroyed.

Outdoors: Insecticides should be applied only when ticks are present. In the spring, survey suspected areas by dragging a 3-foot by 3-foot white flannel cloth along the ground. If ticks are found, use a single insecticide application in late April or May to effectively control nymphal and adult lone star ticks and adult American dog ticks. Survey again in August or September for newly-hatched lone star seed ticks and apply an insecticide to appropriate areas.

Where tick populations are high, outdoor areas that may need treatment include vegetation along borders, areas between woods and lawn, around ornamental plantings, fence lines, etc. Make sure the plants to be treated are listed on the label to prevent plant injury. Ticks avoid direct sunlight, so treating the entire lawn is not usually needed. Insecticides used for tick control include bifenthrin, cyfluthrin, lambda-cyhalothrin, fluvalinate, permethrin and others. Areas that dogs frequent should also be treated. Products labeled for outdoor use are NOT usually labeled for treating pets!

For specific pesticide suggestions, see UT Extension PB1690 Insect and Plant Disease Control Manual at <http://eppserver.ag.utk.edu/redbook/sections/structural.htm>

Sources:

CDC. 2008. Learn about Lyme disease. <http://www.cdc.gov/ncidod/dvbid/lyme/index.htm>

CDC. 2008. Use These Simple Measures to Prevent Tick Bites. http://www.cdc.gov/ncidod/dvbid/lyme/Prevention/ld_Prevention_Avoid.htm (photo credit too)

CDC. 2008. Summary of Notifiable Diseases --- United States, 2006. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5553a1.htm>

Register Now for the Cogongrass Workshop

By Beth Long

A Cogongrass Identification Workshop will be held on Tuesday, July 22, 2008, from 10 a.m. to 2:30 p.m., at the Ed Jones Auditorium on the Ellington Agricultural Center campus in Nashville. The Tennessee Exotic Pest Plant Council is organizing the workshop.

Dr. Dave Moorhead of the University of Georgia Warnell School of Forest Resources will be conducting the training. Training will include a brief introduction to cogongrass, plant identification, control treatments, equipment sanitation and inter-agency agreements.

Those working on the southern border of Tennessee are especially encouraged to attend. Extension personnel travel costs will be covered through a grant by Beth Long. There is no registration fee, but you must pre-register. Call or email Anni Self at Anni.Self@state.tn.us or 615-837-5313 by July 1 to register for the workshop.

Corn: No Serious Problems with Cutworms to Date

By Russ Patrick

I have been catching a few in the traps. We are probably in between generations. Cool and wet conditions will continue to favor cutworm development. Check your fields carefully. They can be easily controlled with an insecticide such as Mustang Max or other pyrethroids. Look for cut plants and if 2% or more have been damaged with larvae, treat them.

Wheat: No Armyworm Problems Reported to Me to this Date

By Russ Patrick

They still have plenty of time to damage the wheat. If head clipping occurs, its time to treat. Pick one of the insecticides that best suits your pocket book.

Pastures: No armyworms causing damage at this time. We do have a new insecticide that can be used: Intrepid by Dow. It works great. Mustang Max can also be used on pastures. Take your pick. Either will do the job.

It is getting time begin bin preparations. There have been a lot of bins erected this year getting ready for corn and wheat. Since prices have shot up more storage will be used to wait for better prices. If you have a bin full of corn aerate it during cool days. Condensation may occur in cool bins. Picture of the bucket trap that will be used this year to collect southwestern corn borers (SWCB). I have plenty of lure, so let me know if you want to use one. The SWCB is usually a late infesting insect. The later you plant corn the better the chance you will have problems with SWCB.



Special Local Need Registration in TN

By Gene Burgess

Penncozeb (mancozeb) 75DF, dry flowable fungicide has received a Section 24(c), Special Local Need registration for use on tobacco for control of tobacco diseases. Target pests are blue mold, anthracnose, damping-off, stem rot and target spot. This is effective from 5/7/08 through 5/7/13.

ENTOMOLOGY AND PLANT
PATHOLOGY EPP—#60

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>

Tennessee Soybean Rust Hotline - 877-875-2326

USDA Soybean Rust Web Site

<http://www.sbrusa.net>

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

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

Entomology and Plant Pathology Web Site

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

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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