



Pest e-alerts



Entomology and Plant Pathology, Oklahoma State University
127 Noble Research Center, Stillwater, OK74078
405.744.5527

Vol. 14, No. 44

<http://entopl.okstate.edu/Pddl/>

Nov 3, 2015

Finally Found: Oak Leaf Itch Mite

Justin Talley, Extension Livestock Entomologist



Many individuals have submitted pictures, e-mails, and complaints concerning bites around their neck down to their extremities. While the suspected pest was considered the Oak Leaf Itch Mite the only indication that this was the pest responsible were the bites on the individuals. Numerous oak leaves with galls in the Tulsa area were examined but there were no mites found. Finally some leaves were sampled in the Pawnee area with the leaf marginal roll and the Oak Leaf Itch Mite was found. Now with a confirmation of the mite from oak leaf galls the question is how do we deal with it?

The Oak Leaf Itch Mite (*Pyemotes herfsi*) is thought to have originated from Europe and was first reported in the US in Kansas in 2004. It is a closely related to the commonly found Straw Itch Mite (*Pyemotes tritici*) which is found in hay, especially wheat straw hay. The Oak Leaf Itch Mite is invisible to the naked eye but the females when full of offspring (see left – female has 14 developing mites inside) will appear like small beads within the oak leaf gall. They are mostly tan in color and elongated when seen through a microscope.

The preferred food sources for the mites are the larvae of gall midges, which are small flies that induce the oak to form marginal galls on the oak leaves. Other food resources that have been documented are cicada immature stages, stored product pests such as beetles, and certain wood boring beetles. It is thought that the Oak Leaf Itch Mite overwinters within the galls of the oak leaves or within leaf litter on the ground. Most of the research demonstrates that the fly midge that the mites are feeding on prefer pin oaks or red oaks. The time for a female mite to initiate feeding on the fly midge until offspring can emerge can be as little as 1 week and this will enable the mite to become numerous over a short period of time.



So now back to the question of how we deal with this mysterious mite that falls from trees. First, recognize the preferred source of food for the mite is the fly midge developing in oak leaves. Then understand that treating a tree with a pesticide is usually too costly and ineffective since the mites are protected within the leaf marginal galls. Once an area is identified of a suspected Oak Leaf Itch Mite infestation, then the best option for avoiding being bit is to stay away from that area if possible. If an oak tree is infested and it covers most of the homeowner's yard space then make sure all leaf litter under that tree is hauled away. When cleaning the leaf litter, be sure to protect yourself by wearing a shirt with long sleeves and also pants then apply a repellent that contains DEET especially on your arms and neck regions. Once done cleaning the yard of leaves be sure to immediately remove and launder your clothing and shower as soon as possible. There have been studies that showed over 300,000 mites falling from infested oak trees per day. Also, these mites can easily be disbursed by wind and be blown through screens so individuals that never go outside have been documented to being bit by this mite.

If bitten by this mite then the best option is to apply calamine lotions or other itch creams to the bites and try to avoid intense scratching since this can lead to secondary infections. In extreme cases individuals need to contact their physician and preferably a dermatologist that can quickly diagnose the severity of the bites.

The intensity of the mite population is only going to decrease with shorter day lengths and cooler nights so there is an end in sight with this pest.

Dr. Richard Grantham - Director, Plant Disease and Insect Diagnostic Laboratory

The pesticide information presented in this publication was current with federal and state regulations at the time of printing. The user is responsible for determining that the intended use is consistent with the label of the product being used. Use pesticides safely. Read and follow label directions. The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Cooperative Extension Service is implied.

Oklahoma State University, in compliance with Title VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, and Title IX of the Education Amendments of 1972 (Higher Education Act), the Americans with Disabilities Act of 1990, and other federal and state laws and regulations, does not discriminate on the basis of race, color, national origin, genetic information, sex, age, sexual orientation, gender identity, religion, disability, or status as a veteran, in any of its policies, practices or procedures. This provision includes, but is not limited to admissions, employment, financial aid, and educational services. The Director of Equal Opportunity, 408 Whitehurst, OSU, Stillwater, OK 74078-1035; Phone 405-744-5371; email: eeo@okstate.edu has been designated to handle inquiries regarding non-discrimination policies: Director of Equal Opportunity. Any person (student, faculty, or staff) who believes that discriminatory practices have been engaged in based on gender may discuss his or her concerns and file informal or formal complaints of possible violations of Title IX with OSU's Title IX Coordinator 405-744-9154.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is issued by Oklahoma State University as authorized by the Vice President, Dean, and Director of the Division of Agricultural Sciences and Natural Resources.