

Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants and Extension Personnel



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Rose Sawflies

There are at least two species of sawflies that attack roses during this time of year; the rose slug (*Endelomyia aethiops*) and bristly rose slug (*Cladius difformis*). Rose slugs are the immature (larval) stage of sawflies, which are black to yellow-colored wasps.

Rose sawfly females make pockets or slits along the edges of rose leaves using their saw-like ovipositor (egg-laying device), and insert individual eggs. Eggs hatch into larvae that look like a slug. Larvae are 1.2 cm in length when fully grown and yellow-green in color, with an orange head (Figure 1). The larvae eventually fall on the soil surface to pupate. Rose slugs overwinter as pupae in earthen cells created by the larvae. There is usually one generation per year in Kansas.



Figure 1: Rose Sawfly Larvae Feeding On Leaf Underside.

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Bristly rose slug larvae are pale-green in color and 1.5 to nearly 2.0 cm long. The body is covered with numerous bristle-like hairs (Figure 2). There is generally one generation per year in Kansas.

Rose slug larvae feed on the underside of the leaf resulting in the leaves having a skeletonized appearance (Figure 3), eventually they create notches or holes on the leaf margins. Bristly rose slug larvae feed on the leaf undersides and also cause leaves to appear skeletonized (Figure 4). However, the larvae may chew larger holes than the rose slug.

Small infestations of either the rose sawfly or bristly rose slug can be removed by hand and subsequently placed into a container of soapy water. A forceful water spray will quickly dislodge sawfly larvae from rose plants; consequently, sawfly larvae are not able to crawl back onto rose plants. A number of contact insecticides (various active ingredients) may be effective in suppressing populations of both sawflies. However, the bacterium, *Bacillus thuringiensis subsp. kurstaki* (sold as Dipel or Thuricide) will have no activity on sawflies as this compound only works on caterpillars.



Figure 2: Bristly Rose Slug Larvae Feeding On Leaf Underside.



Figure 3: Feeding Damage Caused By Rose Sawfly Larva.



Figure 4: Feeding Damage Caused By Bristly Rose Slug Larvae.

Corn and Wheat Pest Update

Corn

Plants in north central and south central parts of the state are finally starting to grow. All the cloudy, wet conditions have not been the best for corn development and many fields are a little more chlorotic looking than usual for this time of year. This stalled development usually allows pests more time to feed and thus cause damage. Seed treatments only provide protection for 3 to 4 weeks (check label) from planting, so most of that protection has dissipated. However, we have not seen nor heard about much pest activity yet. A few thin stands have been noted which can be caused by many different pests, probably most common so far has been wireworms. Generally, however, most fields are past seedling damage.



We have received a few calls about armyworm activity in wheat and sorghum, so when these larvae pupate and then emerge as adults to lay eggs, most corn will be in the whorl stage so there may be some whorl-stage leaf feeding which is always highly visible but causes very little actual impact on yield.

Wheat

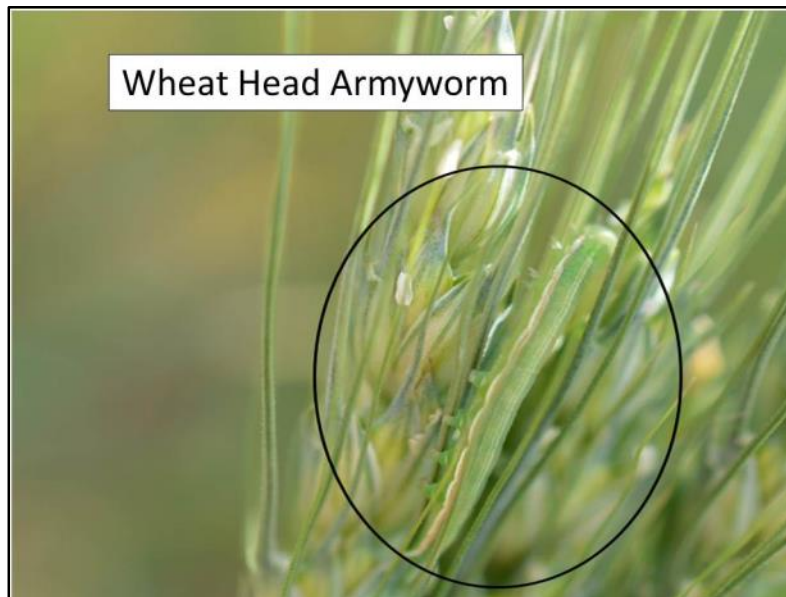
We have not seen any “worms” in wheat, but have received several calls about armyworms feeding on leaf tissue. Armyworms should move to another grass host, i.e. corn, sorghum, brome, etc. as the wheat begins to senesce. They actually devour leaf tissue and thus are not actually feeding on the grain.

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If there are thin, light green or tan worms feeding on the wheat head they are probably wheat head armyworms (see photo). They can and will actually feed on the grain whereas the armyworm feeds on the foliage around the grain – not the grain itself.



If you decide to treat either pest, please refer to the Wheat Insect Management Guide, 2015: <http://www.ksre.ksu.edu/bookstore/pubs/MF745.pdf> and make sure to check the label for the preharvest interval (PHI) if spraying wheat this close to harvest.

Jeff Whitworth

Holly Schwarting

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An old friend revisited – Woolly maple/briar aphids (WMBA)

It has been a number of years since I have had occasion to address woolly briar/maple aphids. And matching dates of past encounters, the timing is right on (in 2007, June 1, and in 2009, May 29).

The inclusion of two very different host plants might have a person asking, “Well, are they on maple or are they on briar?” In fact, both a **primary** woody host (maple) and an unrelated **secondary/alternate** herbaceous host (brier) are required for these aphids to complete their seasonal life cycle.

Despite their rather simple and familiar appearance, some aphid species (such as woolly maple/briar aphids) have very unusual and complex reproductive adaptations. While most people are aware that the aphids which they encounter in their gardens and landscape plantings are all females which (in the absence of males) reproduce parthenogenically by giving birth to living offspring, sexual forms are required for mating purposes and the eventual production of overwintering eggs. This is where maple trees come in --- where (in the Fall) WMBA deposit overwintering eggs.

Thus, beginning in Spring, each 1st generation aphid emerging from an overwintered egg is a wingless female called a **fundatrix** (foundress-of-a-colony). The offspring of each succeeding generation (all females, called **fundatrigenae**) also produce living young. These aphids eventually become overcrowded as they colonize twigs and branches.



**Photo Credit: Shannon Blocker
CEA Horticulture,
Frontier Extension District**

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While the above-pictured aphids appear to be “normal aphids”, they aren’t called woolly aphids for no reason. That is, these aphids possess specialized wax-producing glands. And at some point, they will begin producing white flocculent strands which provides them with their “wooly appearance”.



While not being sure of the exact stimulus at work, at some point, possibly overcrowding and constant touching/bumping-into-each-other “triggers” an internal response mechanism promoting wing production in developing aphids. By mid- to late June, those aphids (again, all females which are now called **exules**) emigrate from their woody maple host to their alternate herbaceous host which, in Kansas, would likely be the plentifully-abundant greenbrier.

Upon reaching the summer host, **exules** deposit their offspring (you guessed it, all wingless females) which in turn account for additional summer generations on their briar hosts. Upon entering Fall, shortened daylight hours, decreased temperatures or a combination of both set off another change in aphid forms (now called **sexuparae**) of which there are two types: **Gynoparae** are winged females which emigrate back to the primary host where they produce wingless females called **oviparae**; and **androparae** are winged females which emigrate back to the primary host where they produce wingless males. Males mate with oviparous females which then deposit the aforementioned fertilized overwintering eggs.

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Now to the discussion on woolly maple/briar aphids that most readers care about. Are they harmful? Is there a need to control them?

The only real complaint leveled against woolly maple/briar aphids revolves around the “sticky mess” which they are responsible for. WMBA congregate on the twigs and branches of the different varieties of sugar maples. They insert their piercing-sucking mouthparts into the phloem elements which conduct the flow of plant juices/sap. Fairly stationary, aphids continually withdraw the sugar-rich sap. The excess juices are eliminated/excreted in the form of “honeydew”. The honeydew “rain” will coat anything beneath WMBA-infested trees --- vehicles, sidewalks, driveways, house decks, picnic/patio furniture, children’s swing sets and toys, items on clothes lines, and so on. Being sticky and nutrient-rich, captured airborne fungal spores can proliferate into unsightly accumulations of dark-colored sooty mold. But other than that, trees easily withstand woolly maple/briar aphid infestations as seen below.



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While insecticidal sprays and/or the use of forceful water sprays might seem called for, neither is practical in practice. And, unnecessary! By the time such infestations are discovered, within a very short period of time (2 weeks, possibly less), as described in the prior explanation of their seasonal developmental cycle, they will quickly dissipate on their own when they seek out their alternate summer host. **IT IS HIGHLY UNLIKELY THAT THEY WILL FIND THEIR WAY BACK TO THE SAME TREE HOST FROM WHICH THEY IMMIGRATED** ---- at least by my experiences/inspections.

Maybe one last-and-legitimate gripe: handle with care. They do leave a hard-to-remove stain that might relegate good clothing to a wear-only-at-home status.



Periodical Cicadas Out in Full Force

The past two weeks have been filled with reports regarding the wide spread occurrence of 17-year periodical cicadas (refer back to Issues #4 and #7 of the 2015 Kansas Insect Newsletter for basic background information on periodical cicadas). I am appreciative of those individuals who responded to my request for information/reports/observations of periodical activities in their respective counties, and super-appreciative for specimens submitted to me as well as photographic images. For the remainder of my inclusions in this week's Issue #8 of the KIN, I am including several images of periodical cicadas.

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**Photo Credits: Melissa Bruner
WIBW 13 News, Topeka , KS**

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**Photo Credits: Melissa Bruner
WIBW 13 News, Topeka , KS**



**Photo Credit: Ryan Armbrust
Kansas Forest Service, Manhattan, KS**



**Photo Credit: Jamie
Stottlemire, Shawnee, Kansas**

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Bob Bauernfeind

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Insect Diagnostic Laboratory Report

<http://entomology.k-state.edu/extension/diagnostician/recent-samples.html>

Eva Zurek

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