Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants and Extension Personnel

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Ash/Lilac Borer

The cool spring we are experiencing may delay development, but it is still important to be aware of potential problems due to the ash/lilac borer (*Podosesia syringae*) that may occur on ash trees. This is not the same insect pest as the Emerald ash borer (*Agrilius planipennis*). The Emerald ash borer is a wood-boring beetle whereas the ash/lilac is a wood-boring caterpillar. It is important to understand the difference. Ash/lilac borer adults are typically active in mid-to-late-April to-early May. They are brown, clearwing moths that resemble paper wasps. Peak moth activity occurs usually from May through June although we may be behind schedule due to cooler temperatures this spring. Adult females lay oval, tan eggs in cracks and crevices, or wounds at the base of plant stems. A single mated female may live about one week and lay up to 400 eggs.

Eggs of ash/lilac borer hatch into cream-colored larvae or caterpillars with brown heads that are about 1-1/2 inches long when full-grown. Larvae cause plant damage by creating tunnels and feeding within the bark (cambium). They may also bore further into the wood and feed within the sapwood and heartwood. This is the primary reason why systemic insecticides are less effective against caterpillar borers than they are against beetle borers. Larval feeding restricts the flow of water and nutrients causing shoot or branch dieback. Ash/lilac borer typically feeds near the base of plant stems creating swollen areas or cracks at the base of plants, and where major branches attach to the trunk. Evidence of larval feeding is the presence of light-colored sawdust that accumulates at the base of infected areas. Clear-wing borer larvae expel sawdust from cracks in the bark that accumulate at the base of infested trees and shrubs while beetle borers (particularly flat-headed borers) pack their galleries with sawdust-like frass. Ash/lilac borer overwinters as late-instar larvae located in feeding tunnels or galleries.

Ash/lilac borer larvae tunnel partially out through the bark before pupating. Adult moths emerging from the pupae are unable to chew, so they push out a thin layer of bark. When an individual moth emerges, the brown pupa case usually remains behind, protruding from the exit hole. Sometimes this is barely visible; however, the pupa case normally extrudes out about a 1/2 inch. Male moths emerge first followed by females later on. Adult

moths are 1.0 inches in length, with a brown-colored body, and they are very active fliers. In Kansas, there is one generation per year.

Similar to other wood-boring insects, the primary means of alleviating problems with ash/lilac borer is to avoid "plant stress" by properly implementing cultural practices such as irrigation (watering), fertility, pruning, and mulching. Stressed plants are much more susceptible to attack than so called "healthy plants." For example, a two to three foot wide mulched area around the base of trees and shrubs will prevent injury from lawn mowers and weed-trimmers. Furthermore, it is recommended to avoid pruning plants in late spring through early summer (under usual weather conditions), which is when moths are typically present.

Insecticides containing the active ingredients, permethrin or bifenthrin (pyrethroid-based) may be applied to the bark—at least up to six feet from the base—in order to prevent ash/lilac borer larvae from entering plants. Clear-wing borer larvae crawl on the bark in search of entry points, which exposes them to insecticide residues. Pheromone traps are commercially available for capturing adult males. This indicates that females will eventually be laying eggs. The use of pheromone traps helps in timing applications of insecticides. Insecticide application sprays should be initiated seven to 10 days after capturing the first moths. Also, be sure to check traps two to three times per week and record the number of newly captured males. For more information regarding ash/lilac borer management contact your county or state extension specialist.

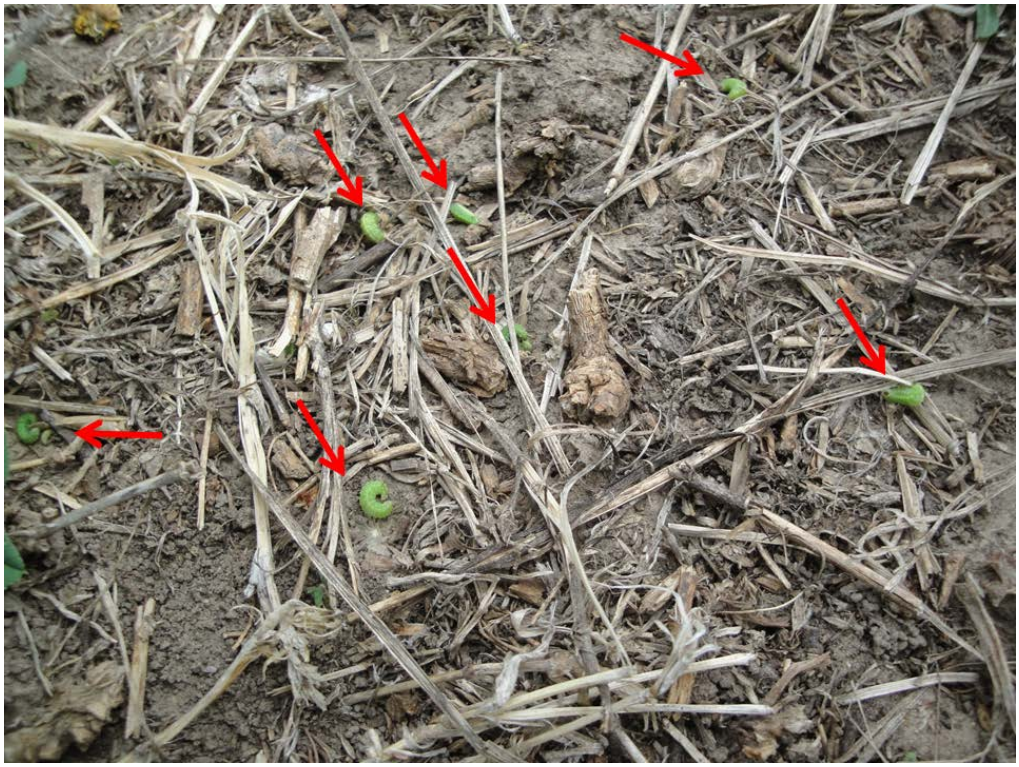
All pictures in this article are from Dr. Whitney Crenshaw (Colorado State University)

Raymond Cloyd

Alfalfa Weevil Update

Alfalfa weevil development continues, but seems to be spreading out a bit. As an example, this past week we sampled several alfalfa fields in north central KS. We found small, 1st instar larvae, however, most are 2nd and 3rd instars. One cocoon was also found that had obviously just been constructed as the larva was still easily visible through the webbing (see photo). Thus, weevils will be doing the most feeding damage, in north central KS at least, in the next 10 days. Some fields are not as heavily infested as in the past few years, and may not reach the treatment threshold, $\geq$ 50%. So, continue to monitor the alfalfa for another 7-10 days then weevil infestations should be past the point of causing economic losses. Cool-to-cold weather may extend weevil feeding.

We sampled alfalfa 3 days after treatment. It was very interesting, as we found a significant reduction in larval infestations. However, the interesting part is that many larvae were detected on the ground, still writhing and twitching (see photo). So, don't be too quick to judge whether an insecticide is effective or not. All the lady beetles and other non-target insects were dead, however. A few pea aphids have been detected. So, when/if you spray your alfalfa fields for alfalfa weevils, the treatment will kill all the beneficials (and the aphids that are present). However, the aphids will probably continue to migrate in and eventually, when the insecticide wears off or the alfalfa puts on new foliage, they will flourish because the beneficials won't come back nearly as quickly. So, keep that in mind when deciding to treat and continue monitoring until the natural enemies return.



Termite Swarms

Have not seen or heard of many termite swarms, yet. However, with the recent moisture, the termite colonies that have been established and have built up sufficient populations will start swarming, as will ant colonies. Thus, please see the KSU Extension publication, *Termites*, available from: http://entomology.k-state.edu/extension/insect-information/household-pests.html to determine whether the swarm you are interested in are ants or termites.

Jeff Whitworth Holly Davis

In the Blink of an Eye – Ash Woes

Perhaps an exaggeration --- after all a "blink" measures but .3 to .4 of a second. But in a sense, appropriate in the sense of convey the speed of an event such as brownheaded ash sawfly activities.

Recall last week's report where ash sawfly activities coincided with current-season production of ash foliage (April 15).

Fast forward 1 week (April 22). Tender leaves have flushed out. While I do not have the camera skills necessary to capture great images of sawflies "in flight", below, one can see black specks/sawflies. Their numbers were sufficiently high that using an aerial net, dozens were easily caught with a single swipe.

As of yesterday (April 24), "pinhole" feeding damage was easily observed.

Looking closely, larvae can be discerned.

I am assuming that the smallest 2-mm long sawfly larvae were most recently emerged.

The larger larva measured 3.5-mm. Judging by the size of its head capsule, it is still in its first instar developmental stage --- but obviously older given its additional length and its "fuller"/expanded appearance.

Now would be a good time for people to inspect their ash trees for pinhole feeding damage. Sprays would be useful in eliminating the current actively feeding larvae, thus preserving the foliage. However, given current presence of adults (and presuming additional egg production), the elimination of larvae currently hatched and feeding may be the tip of the iceberg. Additional monitoring and follow-up spray treatments are required.

Bob Bauernfeind

Insect Diagnostic Laboratory Report

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

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Sincerely,

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