

Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants and Extension Personnel



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June 13, 2014 No. 11

Chinch Bugs

Kansas State University Chinch Bug Plots--- as you can see these plots were planted perpendicular and adjacent to a maturing wheat field. The ‘treatment’ is visible on the right hand side of the picture and the untreated is on the left. Results will be determined at a later date.



Jeff Whitworth

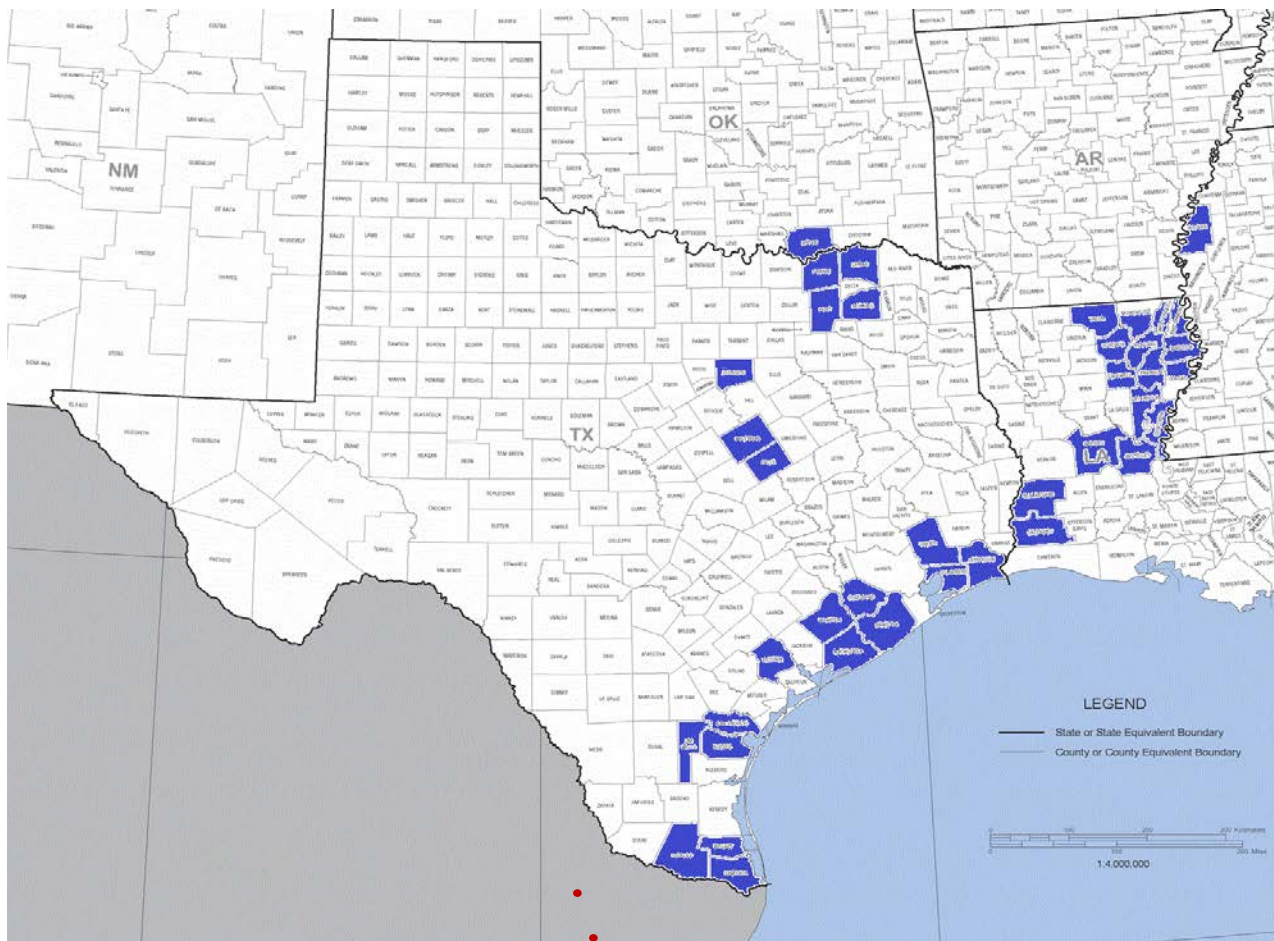
Holly Davis-Schwartz

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Sugarcane aphid: A new threat to grain sorghum on the High Plains

The sugarcane aphid, *Melanaphis sacchari*, (SCA) was found infesting sorghum in Beaumont, Texas in June of 2013. By the end of the year, large aphid populations were infesting sorghum fields in 38 counties and parishes in Texas and Louisiana, and fields further south in Mexico. The aphid overwintered successfully in south Texas, without resorting to sexual reproduction, and has infested large acreages of this year's crop which is now approaching harvest. These aphid populations have now declined, but not before producing large numbers of alates (winged aphids) that will have dispersed on wind currents over a wide geographic region. It is quite likely some of these aphids will find their way up to Kansas, although whether they will be able to establish economic infestations here is not yet known. Farmers are advised to be vigilant.



Distribution of sugarcane aphid as of January, 2013.

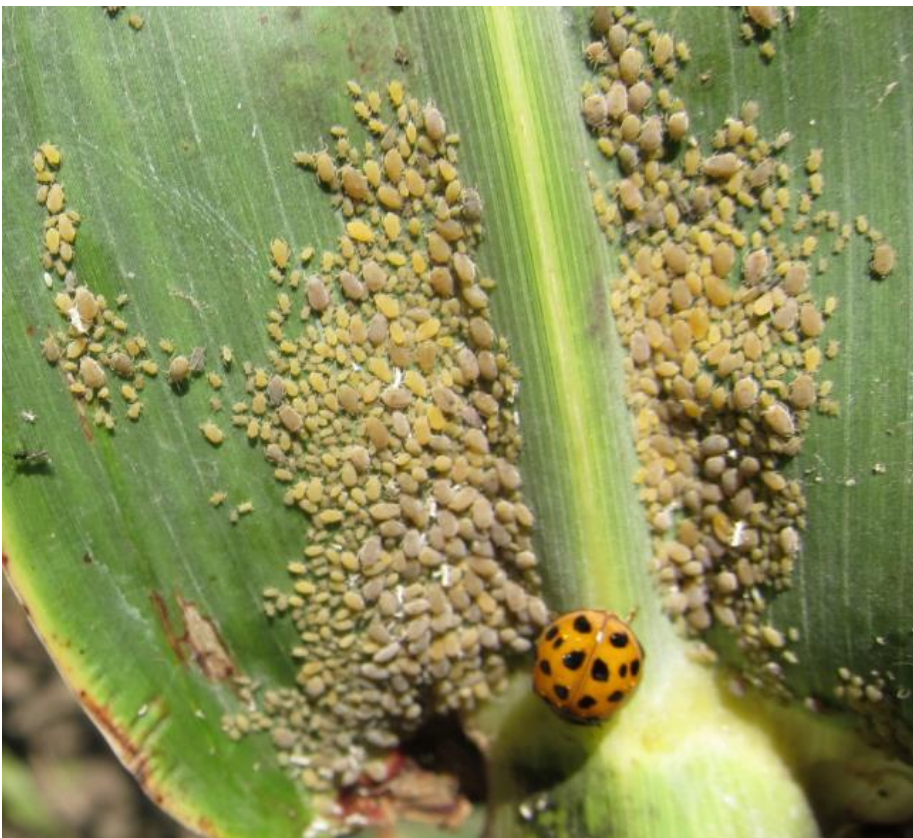
The color of this aphid can vary from very pale yellow to quite a dark reddish or brownish-gray, depending on temperature. Under summer conditions, the aphid will be very pale and the young nymphs almost white. (Extension agents want to call it the white sugarcane aphid, to distinguish it from yellow sugarcane aphid which is a completely different species.) The distinguishing feature of this aphid is very short, black cornicles ('tailpipes').

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Overwintering colony.

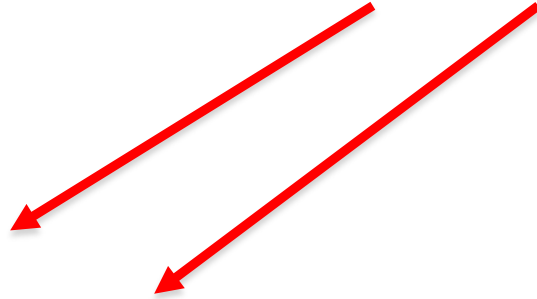


Summer colony.

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QuickTime™ and a
decompressor
are needed to see this picture.



Close-up of sugarcane aphids showing distinctive short, black cornicles.

Corn leaf aphids have longer black cornicles and black legs; greenbugs have longer, pale cornicles. Feeding damage to sorghum by SCA causes dark reddish, chlorotic lesions quite similar to those caused by greenbug feeding. Also similar to greenbug, the aphid preferentially colonizes the undersides of lower leaves, gradually moving higher up on the plant. Unlike greenbug, which cannot feed in panicles beyond the flowering stage, SCA will feed right up to grain fill and affect grain quality as well as quantity. Harvest can also be problematic when plants are coated with large amounts of honeydew. Yield losses of 50 – 80% have been reported from heavy infestations.

A number of insecticides are proving effective in controlling SCA and an emergency label has been granted for Transform (sulfoxaflor) in Texas which appears to give good results. The good news is that many aphid natural enemies are responding and should eventually control this pest as they do greenbug. Large aphid populations in the first few years following a new invasion are typical, and will require insecticide treatment to preserve yields. However, economic thresholds have not yet been developed for SCA and heavy insecticide usage is likely to delay the evolution of beneficial species that will ultimately provide natural control. In Kansas, the most important aphid predator in sorghum is the convergent lady beetle, *Hippodamia convergens*. In fact there has been a very large multiplication of *H. convergens* in Texas, so we already know they can develop and reproduce well on this pest.



Newly emerged *H. convergens* adults finishing off an SCA colony. Can you spot the single 7-spot lady beetle?

In 2014, the SCA moved from sorghum to infest sugarcane, Johnson grass, and corn, so all of these plants are potential hosts, although performance on corn appears to be poor. Anyone suspecting an infestation of SCA should contact J.P. Michaud at the Agricultural Research Center - Hays, either by phone (785-625-3425) or by email: jpmi@ksu.edu.

J.P. Michaud

Iris Woes – Iris Borers

Sometimes, laziness provides opportunity. In this instance, iris borers. In 2011, my iris plantings were hard hit by iris borers. At that time, I thought that I thoroughly rogued out all of the infested plants. Thus, soon after, they were but a fleeting memory, and frankly I sort of ignored my iris plants. It would have been better had I tended them (separated and replanted in 2012 or 2013) and thus detected and addressed a “creeping problem”. But as I indicated, I was lazy.

As I was recently putzing around, I noted suspicious looking plants displaying some browned and dead foliage. Even before I looked closer, I knew what I would find. Parting some of the leaves, a water soaked area became evident (arrow).

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Zeroing in closer, two things stood out. There were little pinholes created when little caterpillars (which hatched from overwintered eggs) bored into the iris leaves. The dark streak and water soaked area indicated that boring activities were underway. This became further evident when separating the leaves, an oozy slimy “frassy” mixture was revealed.



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Yet, no sign of the iris borer larva. But peeling back the outer leaves to access the newest foliage, and slitting the leaf, the caterpillar's tail was exposed (black arrow), and then teasing apart the slimy mass, the pinkish caterpillar itself.



The current caterpillars will continue to move downwards, eventually entering the rhizomes where they could grow to up to 2-inches in length as they complete their feeding requirements. Rhizomes will become hollow and filled with mush due to contamination by soft rot organisms.



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By mid- to late summer, mature larvae will leave rhizomes, entering the soil to transform into their pupal stage. Moths emerge 2-3 weeks later followed by mating and the deposition of overwintering eggs.

If people have iris borer concerns, now (although late) is better-than-never to inspect iris beds for “sick plants”. At this point-in-time, larvae will be confined within leaves and possibly some already in rhizomes. Removal of infested plants should put an end to iris borer infestations barring moths from adjacent/neighborhood beds moving in to deposit eggs in late summer/early fall. For myself, I will take the opportunity to let-them-be and follow their progression, possibly collecting several pupae, and eventually moths.



Flurry-of-Wings – Hackberry Caterpillar Butterflies

I recently received a report of masses of annoying moths. At first, I thought that the earnest army cutworm moth migration was beginning. But the current report was of a mid-day event, and so wouldn't be the “moth event” that I predicted back in May based upon reported high army cutworm activities in crop commodities (turns out I didn't hear a peep of any “miller moth” reports/complaints ----- so much for my powers of prediction ----- great when you're right, mud-on-your-face when you're wrong). Daytime/mid-day butterfly flurries along trails invariably are attributed to hackberry caterpillar butterflies.

Outbreaks of hackberry butterflies are sporadic and unpredictable. While hackberry butterflies are present every year and often go unnoticed, “outbreaks” may cause concern.

Exact reasons to explain outbreaks are unknown. An often-cited reason to explain them is the mildness or severity of the previous winter. This breaks down, however, if one looks at a relatively limited geographical area experiencing a spate of hackberry butterflies, against other areas which experienced the same winter conditions ---- which begs the question, “Why here and not there?”



The definitive work done by C. V. Riley in Missouri (1874) documented that hackberry butterflies produced 2 generations per year, with the larvae emerging from the eggs of second generation moths being the overwintering form. Based on this, there would be little reason not to expect the same 2 generation scenario in Kansas. So what is the commotion about regarding hackberry caterpillar butterflies? It is the butterflies themselves as well as the impact of larval activities.

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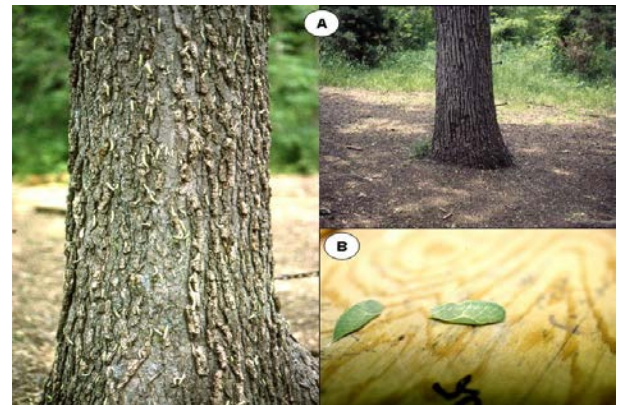
The presence of the larvae precedes that of the butterflies. The head of the larva has an interesting look: a black horned appearance.



In the absence of people, hackberry caterpillars go about their business without causing concern. However when people decide to “invade” the domain of hackberry caterpillars, a couple of situations occur. First, if picnicking beneath hackberry trees in which caterpillars are feeding, the rain-of-fecal pellets can be unappetizing.



Second, after caterpillars have completed their feeding up in the canopy of hackberry trees, they descend (A) to the ground in search of a site in which they will pupate (B). This stream of caterpillars (again in the presence of people) may be disconcerting.



Tremendous numbers of larvae translate into eventual tremendous numbers of butterflies. Thus the “nuisance factor” continues upon completion of pupation and the emergence of the “new” butterflies.

Picture yourself walking down a woodland path and being confronted by uncountable numbers of hackberry butterflies. The “nuisance factor” is related to the habit of male hackberry butterflies to unexpectedly dart out from their resting places as people walk by. Not that they will harm a person in any way ---- just the startle factor and



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the perception that one thinks or feels that he/she is being attacked. Or possibly, the sloughed off wing scales (“dust”) may irritate individuals with sensitivities towards allergens.

Park a vehicle in a wooded area? Hopefully the windows were rolled up.



Bob Bauernfeind

Insect Diagnostic Laboratory Report

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

Eva Zurek

Sincerely,

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Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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