

Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants and Extension Personnel



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Soybean Pest Update

Sorghum Pest Update

“Float like a butterfly, sting like a bee!” “They’re here”. ---- Monarch Butterflies

Not so mysterious “Itching” – Oak leaf Itch Mite

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Insect Diagnostic Laboratory Report

Soybean Pest Update

Double cropped soybeans are still very much in the reproductive stages throughout north central Kansas. Thus, they are still vulnerable to a variety of pests – and pest populations seem to be increasing. Green cloverworms (see pic) have been feeding on leaves for the past couple of weeks but are starting to cease feeding to begin pupating. They rarely cause actual yield loss but usually cause concern because of the amount of defoliation they often cause. While green cloverworms don’t feed on the pods or seeds, adult bean leaf beetles and corn earworm larvae (a.k.a. soybean podworms) do (see pics). Both species, bean leaf beetles and corn earworms, seem to be increasing throughout south central and north central parts of the state. The corn earworm larvae will usually feed on the seed within the pod and will only feed for about 10-14 days. However, bean leaf beetles will continue to feed until harvest, or they disperse to overwintering sites.



Green Cloverworms

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Adult Bean Leaf Beetle



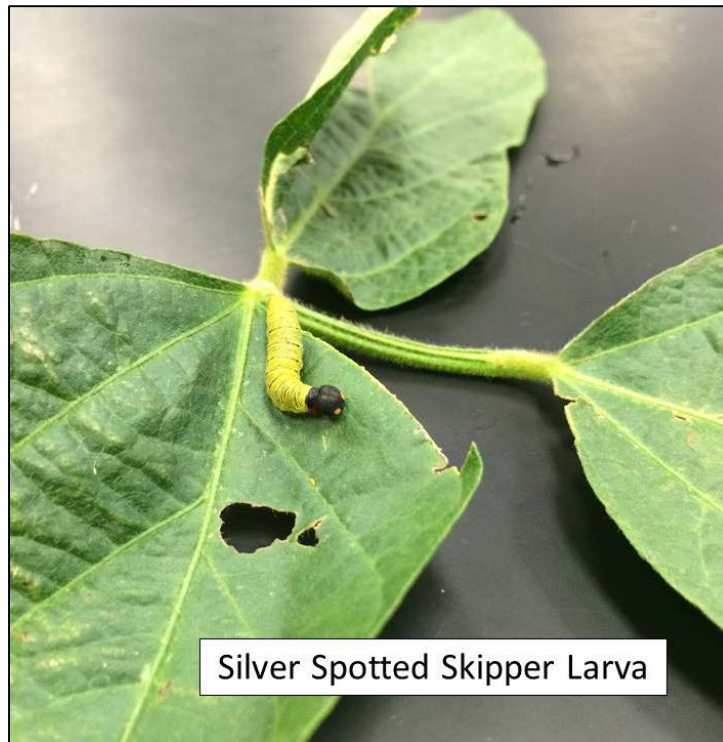
Bean Leaf Beetle Feeding Damage



Corn Earworm/Soybean Podworm feeding on seed in pod

There are still a few soybean aphid populations in north central Kansas, however there are more winged adults present which probably means they are mostly finished feeding and preparing to migrate to overwintering sites (they probably do not overwinter successfully in Kansas – we hope).

We have received several calls this week relative to these “interesting little green worms” in soybeans. These are silver spotted skipper larvae and will feed on leaves but should not defoliate enough, on a field-wide basis, to impact yield.



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Sorghum Pest Update

The majority of the double cropped sorghum seems to be past flowering and almost to the soft dough stage. This means much of this crop is almost past the susceptible stage relative to corn earworms (a.k.a. sorghum headworms), which is about soft dough. Later planted sorghum still needs to be monitored though as earworm moths are still ovipositing in sorghum heads. Sugarcane aphids (SCA) are still very active in north central Kansas, as are their natural enemies, and thus these populations should also continue to be monitored. The insecticides registered for sugarcane aphids have performed really well at controlling these aphids, as have the products used for controlling headworms. Just remember, gallonage is extremely important for SCA applications.

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Jeff Whitworth

Holly Schwarting

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“Float like a butterfly, sting like a bee!” “They’re here”. ---- Monarch Butterflies

Pushing the envelope (as I often do), how does one use Muhammad Ali’s “Float like a butterfly, sting like a bee”, epitomized boxing style, and the movie Poltergeist tagline, “They’re here”, as an introduction to a Kansas Insect Newsletter article? I spent time on Saturday and Sunday doing yardwork. It was Sunday afternoon that (out of the corner of my eye) I frequently glimpsed monarch **butterflies** lazily/lightly **floating** by. I had noticed none the day before. So, “**They’re here**” refers to their arrival in Kansas (well, Manhattan) on Sunday as they were on their southward migration to their overwintering grounds in Mexico.

There are individuals with passionate interests in the status of monarch butterfly populations and activities. Avid monarch-watchers access websites which better document the current presence/movements of migrating monarchs. My sighting certainly has no official status in terms of documentation ---- just a “casual” observation on my part.



Photo Credit: en.wikipedia.org

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Not so mysterious “Itching”

(Oak Leaf Itch Mite)

Whereas scratching an itch sometimes provides satisfying (almost pleasurable) relief, at other times scratching an itch can be painful and distressing. The latter situation is attributable to the mite, *Pyemotes herfsi* (Oudemans).

Unlike chiggers which have been long-recognized for producing annoying but fleeting bouts of itchiness, mysterious “bites” causing raised quarter-sized reddened areas each with a centralized pinhead-size blister were of widespread occurrence in 2004 in various Midwestern states.



**Photo Credit: Jim Kalisch – Entomology
University of Nebraska**

Through investigative studies, the aforementioned *Pyemotes herfsi* mites were identified as being responsible for the mysterious bites. Although the existence of these mites had been well known for multiple decades, the correlation between them and reported widespread occurrences of human discomfort was unknown. The severity of the 2004 outbreaks resulted in cooperative efforts between K-State and the University of Nebraska entomologists, the resultant being the identification of *Pyemotes herfsi* as responsible for the stressful skin disorders.

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Pyemotes herfsi were recovered from marginal fold galls on (primarily) pin oak leaves. Marginal galls are associated with the larvae/maggots of tiny midges. That is, *Pyemotes herfsi* prey upon the midge larvae. The following side-by-side close-up images show an intact marginal gall, and a dissected gall revealing female *Pyemotes herfsi*. Despite their small size, they become readily visible due to their bulbous abdomens which can contain up to 200 offspring.



Due to their minuscule size compared to that of midge larvae, *Pyemotes herfsi* possess a potent neurotoxin used to paralyze their maggot hosts. This toxin is that which is responsible for initiating the skin irritations which cause discomfort in individuals upon which *Pyemotes herfsi* happen to come in contact with. Because *Pyemotes herfsi* are associated with the midge larvae responsible for marginal galls on oak leaves, *Pyemotes herfsi* have been given the common name, **Oak Leaf Itch Mite**. It is believed that oak leaf itch mites also prey upon the larvae of another closely related midge species responsible for the formation of vein pocket galls on the undersides of oak leaves. A full description of the oak leaf itch mite life cycle is available online by accessing Kansas State University Extension Publication MF2806.

The good news is that oak leaf itch mite populations may be extremely low or absent for years-on-end ----- people can enjoy the outdoors without having to contend with oak leaf itch mite encounters. The bad news is that the reappearance/resurgence of oak leaf itch mite populations is unpredictable. There are various unknown factors as to the whys-and-where their populations are and when they will surge. Undoubtedly there are ever-present reservoir populations of oak leaf itch mites, but, where are they? Possibly a major factor for population explosions is contingent on fluctuating populations of the appropriate gall midges responsible for the formation of marginal galls and/or vein pocket galls. An intriguing question then would be, "How do the tiny mites detect and move to the galls up in tree canopies?"

More bad news: Each female oak leaf itch mite produces many progeny. And the developmental cycle is reported to be just 7 days. The resultant is the production of uncountable numbers of oak leaf itch mites which ultimately leave the confines of leaf galls. Passive dispersal via air currents is the bane to people, especially those in neighborhoods where pin oaks constitute the main trees species.

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The bad news continues: There is a wide time frame during which encounters with oak leaf itch mite might occur. It is not only the initial late summer encounters, but the presence of oak leaf itch mites extending well into the fall when people are raking leaves and kids having fun playing in leaf piles.

And if this is not enough negativity regarding oak leaf itch mites, there is little to be done (well, actually nothing to be done) in treating and reducing/eliminating their populations. **THEY WILL HAVE THEIR WAY!**

The people who are most likely to encounter oak leaf itch mites will be those in living in areas/neighborhoods where oaks (again, especially pin oaks) are the dominant tree species. When oak leaf itch mite populations are excessive, restricting outdoor activities is one method of reducing the risk of exposure. While the use of repellents may work against annoying insect species which actively seek a host, repellents have little effect against oak leaf itch mites which are passively dispersed, and lack the ability to alter their course/direction. It has been suggested that susceptible individuals (yes, some people do not have negative reactions to oak leaf itch mite bites) spend as little outdoor time as possible. And showers immediately upon returning indoors might eliminate/wash off mites before they bite and cause reactions.

Individuals experiencing oak leaf itch mite encounters might utilize medications and lotions so designed to provide relief from itching discomfort as well as secondary infections of excoriated areas. Seek advice and recommendations from appropriate personnel.

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Bob Bauernfeind

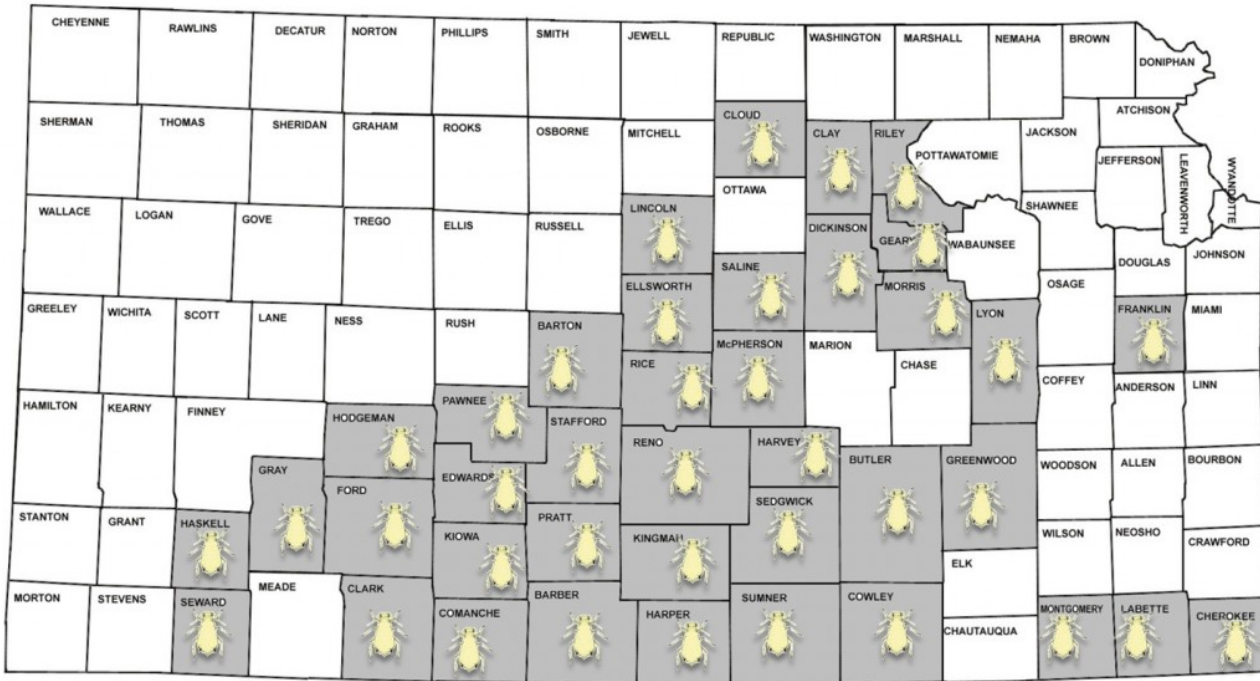
The sugarcane aphids are slowing down...for now

The sugarcane aphid (SCA) movement in Kansas has slowed down for the moment with the sorghum crop maturing and drying down. South-central Kansas seemed to be the "hot zone" this year, but many counties further north and west got to see populations of these aphids as well. Some chemical rep's have suggested spraying sorghum fields as soon as SCA populations of any size are found, however finding a few SCA does not necessarily warrant immediate treatment. Using our new thresholds ([found here](#)), many farmers outside of the hot zone" in Kansas did not have to spray their sorghum fields for SCA.

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2015 Sugarcane Aphid Occurrence on Sorghum in Kansas



updated September 21, 2015  <http://blogs.k-state.edu/kansasbugs/>
Kansas State University,
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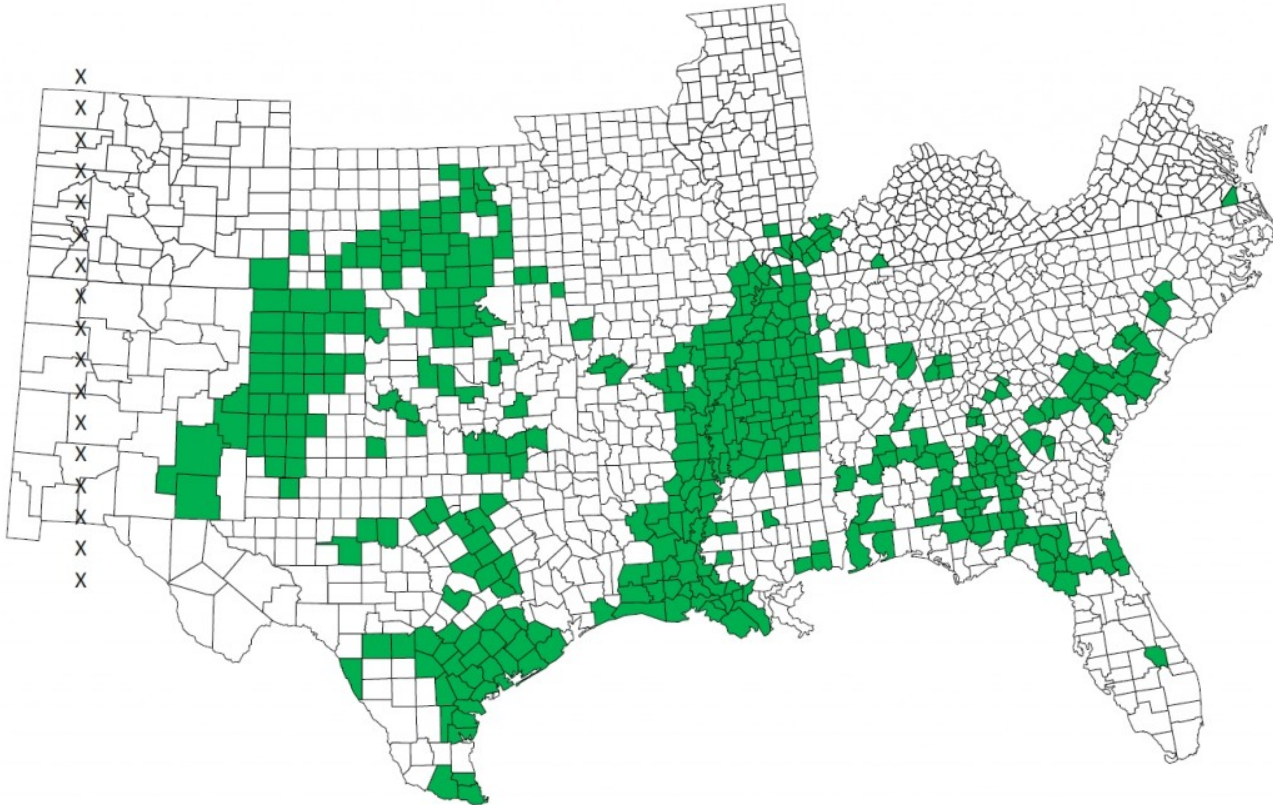
Next season it will be important to monitor the progression of the SCA northward from TX and OK and observe thresholds before treating. This is especially important because populations of SCA can be swept into the same fields multiple times depending on the weather, and the chemical options for treating the SCA will be even more limited next year. A federal judge recently ruled against the sale of Sulfoxaflor which is the active ingredient in one of our best tools against SCA, Transform insecticide ([Article here](#)). Our SCA Task Force is currently working on what this means for SCA control next season, but it will likely mean that Transform will not be sold anymore. We will keep you posted on this issue.

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2015 Sugarcane Aphid, *Melanaphis sacchari*, Occurrence on Sorghum
September 18, 2015



This map shows the states where sugarcane aphids were found in sorghum as of Sept. 18th this year. So far, several new state records have been recorded including Virginia, Tennessee, New Mexico, Colorado, and Illinois.

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Sarah Zukoff, Southwest Research and Extension Center, Garden City, KS

Insect Diagnostic Laboratory Report

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

Eva Zurek

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