Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants and Extension Personnel

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Yellownecked Caterpillar

This is the time of year to be on the watch for certain caterpillar pests that feed on trees and shrubs in landscapes. One of these is the yellownecked caterpillar, *Datana ministra*. Yellownecked caterpillars may feed on a broad range of plants including azalea, beech, birch, crabapple, elm, linden, maple, oak, and walnut.

Adults are brown in color with a distinctive red to brown colored head and approximately four wavy lines on the forewings. Adult moths may be present throughout the summer depending on environmental conditions. Female moths deposit white eggs in masses of 25 to 100 on leaf undersides. Eggs hatch into caterpillars (=larvae) that are yellowish with black stripes and are covered with fine hairs (not urticating). They soon transition into an orange-reddish color and then turn black with yellow or white stripes. The caterpillar gets its name from the bright orange-yellow segments behind the head. Full-grown larvae are 2.0 inches (5.0 centimeters) in length and black with yellow or white stripes. When a group of caterpillars are disturbed, all lift their heads and tails to form a distinctive U-shape posture, which is a defense response. The caterpillars are gregarious (feed in clusters), generally feeding for four to six weeks at a time. Young larvae typically skeletonize the lower leaf surface, whereas older larvae may consume the entire leaf with the exception of the petiole. Late-season defoliation may not significantly impact plant health, but feeding damage may be unsightly. In late summer, larvae crawl down the trunk and burrow 2 to 4 inches (5 to 10 centimeters) into the soil to pupate. Yellownecked caterpillars overwinter as pupae. There is usually one generation per year.

Pruning out small colonies or hand-picking individual caterpillars and placing into soapy water is an effective means of quickly dealing with yellownecked caterpillars late in the season. If you place the caterpillars, as you pick them off plants, into a container with 2 pints of warm milk, dump into a blender, allow the blender to run for 2 minutes, add a tablespoon of sugar, allow the solution to remain idle for one hour; this will result in a delicious “caterpillar milkshake.” Insecticides that may be effective against populations of the yellownecked caterpillar include *Bacillus thuringiensis* spp. *kurstaki* (Dipel or Thuricide), spinosad (Conserve), and pyrethroids such as bifenthrin, cyfluthrin, and lambda-cyhalothrin. Make applications when caterpillars are small, particularly when using Dipel or similar products. If cateripillars are “too big” then use the other above mentioned products. Yellownecked caterpillars are susceptible to attack by a variety of natural enemies including birds (robins and bluejays), predaceous bugs, and parasitoids (or parasitic flies).

Raymond Cloyd

Volunteer Wheat

With the spotty and sporadic showers we have been receiving recently, volunteer wheat is staring to germinate. Since wheat planting time is approaching it is time to remind wheat growers to please remember to destroy volunteer wheat in a timely manner, i.e. at least 2 weeks prior to planting. This volunteer is a 'green bridge' that may harbor any of our wheat pests; Hessian flies, wheat curl mites, bird cherry-oat aphids, etc. and can be a reservoir for diseases, all of which are just waiting to move into the new crop.

Wheat Seed Treatment Trial Results

For those that have not yet decided whether to use and insecticide seed treatment, please look at these tables. These studies will be conducted again this year and expanded. Aphid and Hessian fly sampling was conducted in fall 2010 and spring 2011 and that data is available. However, very few aphids or Hessian flies were detected in these plots throughout this time frame.

2010 - 2011 Wheat Seed Trial # 1 Dickinson Co., Kansas	
Planting date: Oct. 16, 2010 @ 90 lbs/acre	
Treated with 2.4 oz. Nitro Shield/100 lbs. seed (48.7% imidacloprid)	
Each plot = 30 acres	
	Yield (bu/a)
Untreated	61.56
Treated	60.01

2010 - 2011 Wheat Seed Trial # 2 - Dickinson Co., Kansas	
Planting date: Oct. 21, 2010 @ 73 lbs/acre	
Each plot = 0.4 acre	
Variety	**Yield (bu/a)**
Everest Gaucho XT	40.28
Everest	42.6
Armour Gaucho XT	37.13
Armour	39.53
Armour	34.36

Brown widow spider in Sedgwick Co.

The brown widow spider, *Latrodectus geometricus*, reported to have been found in Sedgwick Co. last week was positively identified as a juvenile black widow, *Latrodectus mactans*, on August 16th.

Jeff Whitworth *Holly Davis*

Great Rebounders -------

Wes Unseld, Walt Bellemy, Nate Thurmand, Robert Parish, Karl Malone, Moses Malone,

Elvin Hays, Kareem Abdul-Jabbar, *Juglans nigra*, Bill Russell, Wilt Chamberlin. All great NBA rebounders. Well, except for one. Can you spot the one who never was on the basketball court?

Yes, that would be *Juglans nigra*. But a great rebounder in a different sense. As seen in Figure 1, this black walnut tree which has appeared in several of this year's Kansas Insect Newsletter (Issue #'s 14 and 17) has "rebounded" nicely from its complete defoliation of July 12. Still a little sparse, but definitely on-the-rebound.

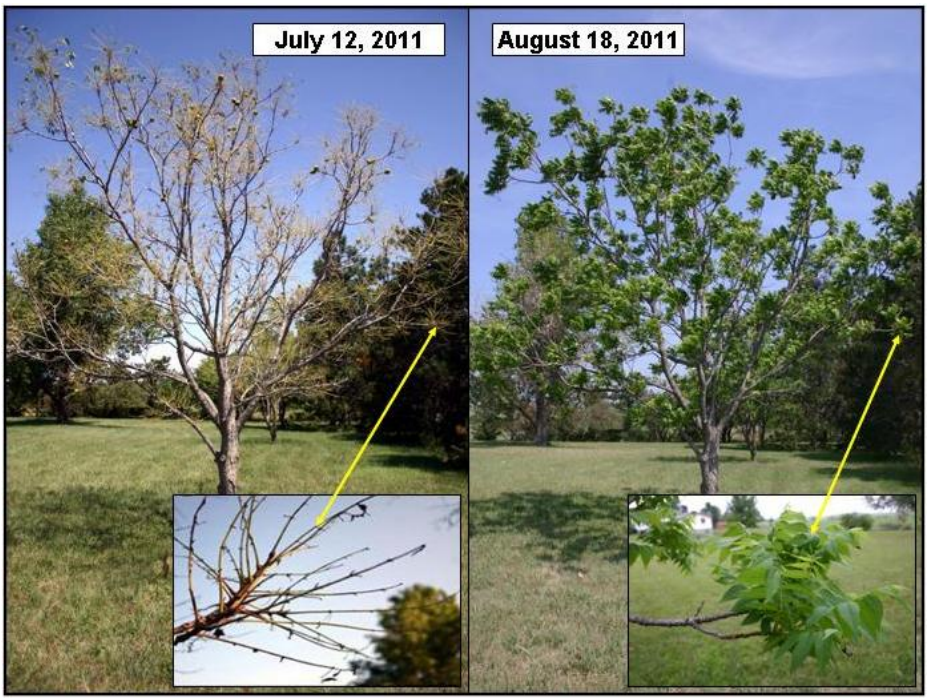

Figure 1

"Lawn Moths" = sod webworms

"Sod webworms" is an umbrella term which covers a wide range moth species whose larvae are potential turf pests. Certain species are predominant depending upon geographical location. In Kansas, that species is *Parapediasia teterrella* (Figure 2 – in red circle).

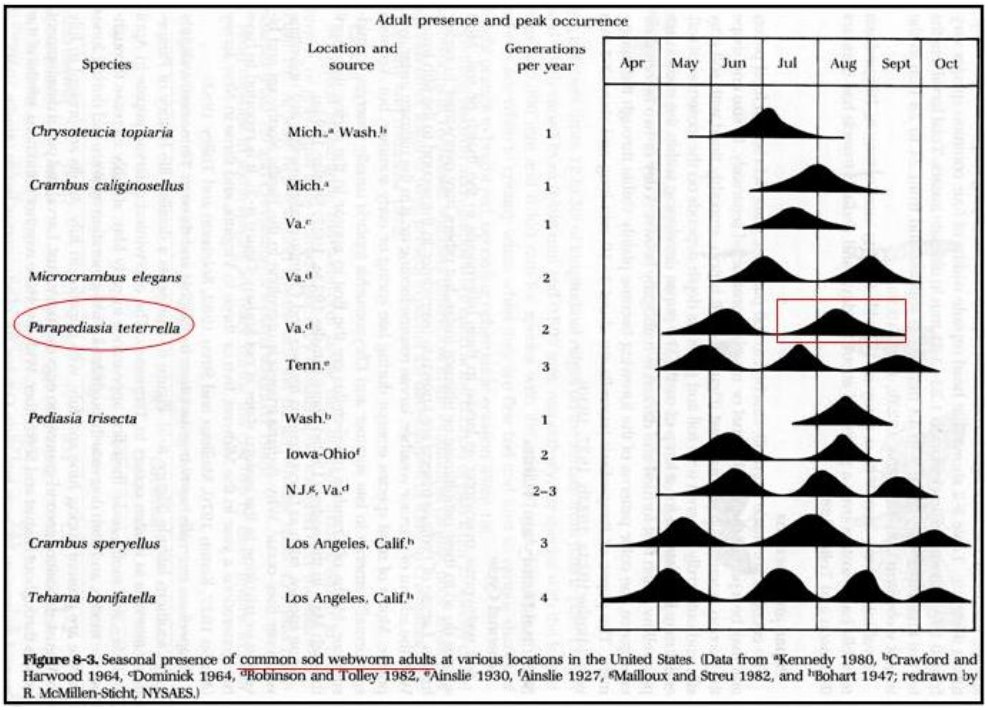

Figure 8-3. Seasonal presence of common sod webworm adults at various locations in the United States. (Data from [a]Kennedy 1980, [b]Crawford and Harwood 1964, [c]Dominick 1964, [d]Robinson and Tolley 1982, [e]Ainslie 1930, [f]Ainslie 1927, [g]Mailloux and Streu 1982, and [h]Bohart 1947; redrawn by R. McMillen-Sticht, NYSAES.)

Figure 2

This species produces 2 generations per year. They overwinter as previous season's 2nd generation larvae which resume feeding in early spring. By mid-May, matured larvae pupate. This is followed by a moth flight which peaks towards mid-June. These 1st generation moths produce eggs. After a 6-7 week feeding period, matured 1st generation larvae pupate. This is followed by the emergence of 2nd generation moths whose flight activities peak in mid-August (Figure 2 – in red box). We currently are in the middle of that 2nd generation flight period as determined by Wednesday evening's blacklight trap catch (Figure 3). These moths will produce eggs giving rise to aforementioned overwintering 2nd generation larvae.

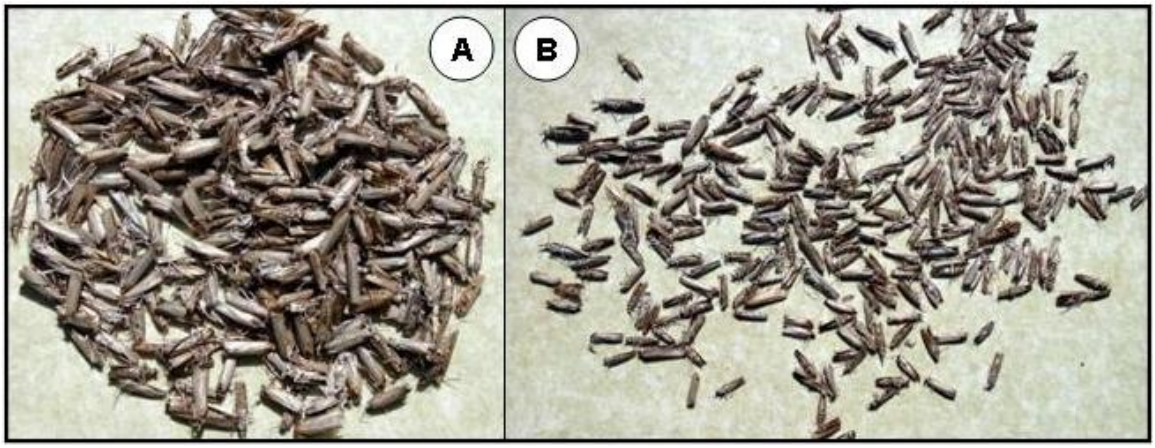

Figure 3

Sod webworm moths are commonly referred to as lawn moths. It is during the evening hours that moths actively fly and drop their eggs into grassy areas. During daylight hours, moths go undetected due to their small size (less than ½-inch long) and their habit of resting on and being hidden in lower portions of grass plants/blades. About the only time people become aware of moth activities is when moths are disturbed as people walk across/through grassy areas or when mowing lawns.

To treat or not to treat: that is the question. While sod webworms have a continual presence, their population levels are low enough that flush/lush healthy lawns are able to absorb feeding damage so that people never know of their presence. Sod webworms rarely are cause for concern. Unless an individual has had a history of frequent sod webworm damage to their lawns, one should not be overly concerned if/when they see lawn moth activity as they walk in and/or mow their yards. [From a personal perspective: I know that the moths pictured in Figure 3 did not fly in from any great distance away ----- sod webworm moths are weak flyers that make but short flights of a couple feet at any one time. Those are moths which emanated from sod webworms in my lawn.]

Mayflies? In August?

Yes. There are many different species that emerge at various times through the season. Mayflies belong to the order Ephemeroptera ---- ephemeral describing their brief lives as adults ---- no feeding ---- they just mate and lay eggs, some species not even living for 24 hours.

Being aquatic insects, Mayfly nymphs are called naiads. They have gill-like structures for breathing in their aquatic environment. The chief benefit of Mayflies is that they are an important food source for various aquatic critters ---- fish, amphibians, crawdads and other insect predators ---- just about anything associated with water environments.

Mayflies sometimes emerge in great numbers (Figure 4). Extreme reports include piles of Mayflies measuring over 3-feet in depth, and roadways covered with Mayflies to the extent that cars "slip" off into ditches.

Bob Bauernfeind

Report from the Kansas State University Insect Diagnostic Laboratory:

The following samples were submitted to the Insect Diagnostic Laboratory from August 5th to August 18th.

August 8 2011 – Johnson County – Bat bugs in home
August 8 2011 – Cumberland County, North Carolina – Hackledmesh weaver in home
August 10 2011 – Russell County – San Jose scale and possible apple maggot on apples
August 10 2011 – Riley County – Flower chafer on roses (*Trichiotinus* sp.)
August 12 2011 – Harvey County – Carpenter ants and cicada killers around ash tree
August 15 2011 – Bourbon County – Wolf spider, *Hogna aspersa* in lawn
August 16 2011 – Michigan – Horse fly larvae (*Tabanus* sp.) in lake
August 16 2011 – Riley County – Brown dog tick nymphs
August 16 2011 – Doniphan County – Carpenterworm and oak borer pupal casings on pin oak
August 17 2011 – Logan County – Harlequin bugs on cabbage and broccoli
August 18 2011 – Graham County – Bean aphids on pigweed
August 18 2011 – Butler County – Velvet ant in lawn
August 18 2011 – Cherokee County – Green cloverworms, thrips, and springtails on soybeans

If there are any questions regarding these samples or about the identification of any arthropod please contact the Insect Diagnostician at (785) 532-4739 or GotBugs@ksu.edu.

Holly Davis

Sincerely,

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