For Agribusinesses, Applicators, Consultants and Extension Personnel



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May 13, 2011 No. 5

When Good Bugs Become Bad Bugs - All Dependent Upon A Person's Perspective

A pest might be defined as something out-of-place --- not considered desirable in a certain setting. A tomato plant, somehow having sprouted and growing in the middle of a flower bed might be (without hesitation) removed during the weekly weeding chore. In a proper "patch", that same tomato plant would be pampered/protected and welcomed. In the realm of insects, an insect predator might be highly revered as beneficial. Yet from another person's point-of-view (under certain circumstances), that same insect might be regarded as a pest.

Case in point: I PROMOTE EASTERN TENT CATERPILLARS IN MY FLOWERING CRAB!!!!! ---- to the extent that I collect egg masses from various other locations and attach them to my tree. And as those eggs hatch, I follow the larvae as they develop. My hope is that I eventually will have a sufficient population of moths producing egg masses on my tree so that I don't have to hunt elsewhere for egg masses to monitor the onset of the ensuing year's eastern tent caterpillar activities.

This year, caterpillars emerged from five of the 6 egg masses under observation. Tents were constructed and caterpillars grew. Ignoring them for the past couple of weeks, I recently noted the tell-tale odor associated with stink bugs as I passed by my tree when mowing my lawn. Stopping to investigate, I found four (4) <u>spined</u> <u>soldier bugs</u> (a type of stink bug) concentrated on one tent. One pair was multitasking: mating and eating (Figure 1). You can observe the female's proboscis (yellow arrow) extended through the webbing as she impaled a tent caterpillar and sucked out its body juices. The prominent pointed corners on the pronotum (black arrow) serve to separate this predator species from a similarly-colored plant-feeding stink bug with "rounded shoulders".

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Figure 1

My disappointment (all 5 tents devoid of caterpillars) would probably be the next person's joy as an example of effective biological control.

The Kansas Derby ---- On The Heels Of The Kentucky Derby

Saturday's 2011 Kentucky Derby was exciting: Shakleford lead from the start all the way coming out of turn four and entering the home stretch. However, in 24 seconds, Animal Kingdom had surged across first, Nehro held on for second and Mucho Macho Man passed a spent Shakleford to finish third.

The Kansas Derby may not be quite as exciting. But European pine sawflies are in the home stretch ---- and by week's end will have finished their run. As of this writing, evidence of their prior presence is in the appearance of needleless terminals (Figure 2a). The larvae have moved to adjacent branches for "dessert" (Figure 2B).





My mistake ----- the EPS closed faster than I thought. Three days after the images in Figure 2, EPS are "doneand-gone" ---- not a one to be found (Figure 3). They have moved to the ground and sought cover beneath soil debris where they are preparing cocoons in which they will aestivate until they pupate in early fall.



Figure 3

In Figure 4, the feeding capacity of EPS larvae is evident as contrasted against branches (same plant) devoid of larvae. Current-season needle production is imminent, and will become next spring's "main course" unless 2012 EPS are addressed/eliminated.





Restoration of a "full appearance" is a slow process --- patience is required. At this time, individuals who have just become aware of EPS damage (after-the-fact) need to make a notation on their 2011 calendar that in late fall, they need to diligently examine terminal needle clusters for fall-laid eggs. By marking egg-ladened terminals, a person can easily relocate that particular terminal enabling them to monitor the development of EPS (beginning in mid-May, 2012), eliminate them, and "save" the 2011 needle production. Thusly preserved and combined with 2012 needles, the overall appearance of the host will be fuller. Continued surveillance and elimination of any EPS in 2013 should result in complete restoration of the aforementioned "full appearance" with the addition of 2013 needle production.

In The Garden – "Cabbageworms", Colorado Potato Beetles, Bean Leaf Beetles

Four "favorite" garden vegetables currently are growing well. But they need to be watched over.

White cabbageworm butterflies are a continual presence as they flit over cabbages and broccoli, but then rest to deposit eggs. Control of "cabbageworms" is especially important as broccoli heads currently are forming (Figure 5, left panel). Wormy and frass-ladened heads are not desirable when ready to be harvested. For cabbages, holes in wrapper leaves (Figure 5, right panel – yellow arrow) may be acceptable. But newly forming heads (white arrow) should be protected against "cabbageworms" to preserve their marketability.



Figure 5

Early-planted potatoes have thrived (Figure 6A). Colorado potato beetles currently are active (Figure 6B and C). Without spending a lot of time flipping leaves, eggs (Figure 6D) were not seen ----- although they were surely present.



Figure 6

Handpicking beetles and/or locating/destroying/removing eggs are two methods often cited by people as a control method against Colorado potato beetles. The practicality of such is dependent on number of plants requiring inspection and the amount of time an individual wishes to spend employing this tactic. If doing neither, it is recommended that people be watchful for the appearance of Colorado potato beetle larvae and applying timely insecticide applications to keep their numbers within acceptable limits to avoid severe defoliation of plants which could have a negative impact on the production and size of tubers.

While cole crops and potatoes are generally regarded as cool-season crops, and snap beans typically are regarded as more of a warm-weather crop, they can be are planted early in the gardening season. Currently, bean seedlings are emerging, and already are being fed upon by bean leaf beetles (Figure 7 – upper panels). Bean leaf beetles are small (1/8-inch) and appear in two color forms (Figure 7 – lower panels). Beetles are elusive and will "disappear" as one approaches a plant, quickly moving to the undersides of leaves or dropping to the ground.



Figure 7

Failure to control bean leaf beetles on newly emerged seedlings can result in stand reductions as beetles (in addition to feeding on young leaves) will feed on the developing stems/meristematic tissues.

Bob Bauernfeind

Report from the Kansas State University Insect Diagnostic Laboratory:

The following samples were submitted to the Insect Diagnostic Laboratory from May 6th to May 12th.

- May 6 2011 Sedgwick County False chinch bugs in yard
- May 6 2011 Neosho County Termite damage in stump (no termites found)
- May 9 2011 Clay County Ant-like Longhorned beetle on screen door
- May 9 2011 Pottawatomie County Buffalo gnats biting horse
- May 11 2011 McPherson County Buffalo gnats
- May 11 2011 Kingman County Varied carpet beetle in home
- May 11 2011 Butler County Drugstore beetle in home
- May 11 2011 Marion County Alfalfa weevils in home
- May 12 2011 Miami-Dade County, Florida Carpenter ants in home

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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 <u>GotBugs@ksu.edu</u>.

Holly Davis

Sincerely,

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