For Agribusinesses, Applicators, Consultants and Extension Personnel



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May 15, 2009 No. 9

Alfalfa Weevil

Alfalfa weevils sampled on 11 May in Riley Co. were 90% mature, i.e. 80% 3rd instars and 10% adults. Alfalfa is within 10 days of harvest. Thus, if you have not yet treated for alfalfa weevils or are considering a 2nd application, the majority of the damage from larval feeding will cease in the next week and therefore it may be prudent to cut the hay a little early to save treatment costs. This will also save any beneficials that may be present to help control future pests such as aphids and potato leafhoppers. If you decide to treat, please pay attention to the preharvest interval for the insecticide you apply.

Carpenter Bees

The Insect Diagnostic lab is beginning to get a lot of calls about "big bees swarming around outside of homes". These are Carpenter bees and resemble bumble bees but have bare abdomens that are a shiny black to iridescent green (Photo1). In the spring these bees, which overwinter as adults, are emerging and looking for other bees to mate with. The male bees can be rather aggressive and may "dive bomb" people in their vicinity. However, they are harmless as they can not sting. The females are capable of stinging but generally will not do so unless handled or molested.



Photo 1

After mating in the spring, female carpenter bees tunnel into wood to lay their eggs, producing round holes about ½ inch wide (Photo 2). These eggs will develop throughout the summer and the young adults will spend the winter in these tunnels. The next spring the cycle begins again. The next generation of carpenter bees may use tunnels that are already there, they may enlarge or extend the current tunnels, or they may excavate new ones.



Photo 2

Carpenter bees prefer to attack wood that is bare, weathered, and unpainted. They prefer softwoods such as redwood, cedar, cypress and pine. Common nesting sites are eaves, window trim, siding, decks, and outdoor furniture. The best way to avoid an infestation is to keep all exposed wood surfaces painted. Stains and varnishes will repel the bees to some degree but are not as effective as paint. Once an infestation has been detected, the tunnel entrances can be treated with an insecticide that has residual activity. Treating at night is most effective while the bees are inactive in the tunnels. The holes should be left open for a few days to allow the bees to come in contact with the insecticide and distribute it throughout the tunnels. Then, the holes can be plugged to prevent further use by carpenter bees and reduce the chances of wood decay.

Jeff Whitworth Holly Davis

Bits and Pieces...... Cutworms, Carpenter Bees, Billbugs

1 for 8......

In major baseball, averaging 1 hit for every 8 at-bats means that a player will likely be sent down to a farm club to work on improving his batting skills before returning to "The Big Show". In my little home garden, 1

for 8 means: 1 for the cutworm and 7 for me (Figure 1).



Figure 1

This cutworm was easily recovered. Whereas the cutworm mentioned 2 weeks ago in KIN #7 was opposite of its tunnel entrance and 5-inches deep, there was no hunt for this cutworm: a simple soil probe exposed it just beneath the soil entrance (Figures 2-4).





Figure 2 Figure 3

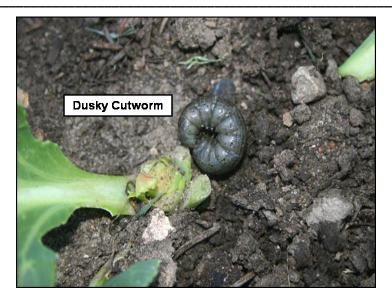


Figure 4

And the fate of the cut plant (Figure 5)? Well, food. But not for me. It will be used to feed and "grow" the cutworm to its full size. Again, remember, that probably only an entomologist would find the positive in this situation.



Figure 5

People might wonder how (this early in the season) cutworm larvae could be as large as they now are. The answer is that they actually began their development last fall. September, October and into November is when dusky cutworm moths (Figure 6) are flying and actively depositing eggs. [Aside: For the astute observer, "Yes. I know that the pictured moth didn't lay eggs ---- it is a male moth"]

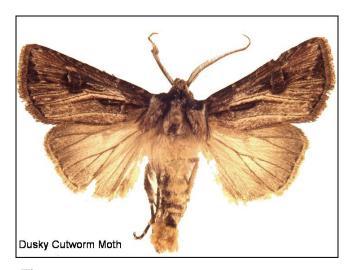


Figure 6

Thus the development of the current larva began prior to the onset of winter. Feeding ceased when cold weather forced it into a semi-dormant state. However, there was continued growth and development (even through winter) when the larva resumed brief feeding forays during warm spells. The resumption of continuous feeding coincided with consistently moderate springtime temperatures. Active cutworm larvae are (now) approaching full maturity, and will soon burrow into the soil and create protective "earthen" cells inside of which they aestivate throughout the heat of summer. At the end of August, the larvae will be transformed into their pupal stage. As mentioned above, the emergence of moths in the fall initiates the next generation of cutworms.

While the cutworms that I am encountering are dusky cutworms, two related species (dingy cutworms and claybacked cutworms) have similar seasonal life histories and feeding habits. The question arises: "If these cutworms are a current nuisance in my cool-season plantings, what about those same type crops in my fall garden?" The answer is: "If you have cutworm problems in your garden this fall, they will not be any of the 3 species mentioned here. All are single-brooded species. Even if present in your fall garden, they will be too small to cut plants of any size". However, in Kansas, there are multi-brooded species (notably the native variegated cutworms, and later generations of the black cutworm who got their start from black cutworm moths that migrated from their southern overwintering range into Kansas back in March". So, cutworms in your fall garden? It is possible.

One last question may come to mind: "If there is nothing in an unplanted garden plot for the cutworms to have been feeding on, from where did they come?" In some garden areas with weedy winter annuals, cutworms may have been developing on those host plants. Or if there were similar host plants or grass(es) adjacent to a garden

spot, the cutworms would have simply moved into the garden. As an example: This past weekend, I was digging up and separating sedum plants from a flower bed close to my garden plot. I unearthed several more "fat" dusky cutworms. (Yes, they have joined the previous two from my garden and all are now being well-fed ----- separate containers, of course, as they otherwise might attack and cannibalize each other).

The "Buzz" Carpenter Bees

On my today's (May 13) morning walk, I noted blue indigo plants in bloom (Figure 7). And I thought, "Time to get my net out and collect carpenter bees for the FFA Insect ID Kits". Over the noon hour, I checked out the hillside plants, and sure enough, carpenter bees were actively foraging (and mating) (Figure 8).



Figure 7 Figure 8

People might assume that if it looks like a bumble bee and buzzes like a bumble bee, it is a bumble bee. However, the abdomen of the carpenter bee is noticeably devoid of hairs/fuzz, and possesses a shiny in appearance (Figure 9)

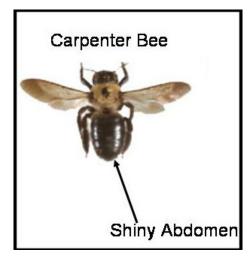


Figure 9

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The major positive aspect of carpenter bees is their role as pollinators. However, people do not recognize carpenter bees in that role. Rather, they view carpenter bees as "threatening" and "destructive". Male carpenter bees are territorial and will "buzz" a person who encroaches into their zone. While this may scare people, males cannot sting and are therefore completely harmless. Knowing this, a person might delight in staring down a male bee hovering at eye-level. Female carpenter bees are not aggressive and will not deliver a sting unless provoked or carelessly handled.

There is no doubt that carpenter bees have a destructive side. Carpenter bees will attack a variety of (primarily) bare and/or weathered wooden items such as structural timbers, decks, lawn furniture, fascia surfaces, fence posts, utility poles and so on.

Initially, newly constructed tunnels may be of "minor" significance. However, extensive/destructive tunneling may occur if galleries are repeatedly reused and expanded over a number of years. Additionally, pollen deposits and carpenter bee excrement may cause unsightly stains. And deposits of "sawdust" may require cleaning/removal.

Some people will wage campaigns against carpenter bees if they (the carpenter bees) have been reoccurring and plentiful in number. Maintaining and painting exposed wood surfaces will aid in preventing carpenter bee problems. Existing entrance holes can be filled/sealed to discourage carpenter bees from reusing previous galleries. Continued surveillance is a tactic used by some individuals who will swat and kill the slow-flying hovering females as they seek/investigate potential nesting sites. When active galleries are discovered, a wire can be inserted to an attempt to kill developing larvae. Caulking galleries will entrap carpenter bees and their larvae.

Some people may opt for an insecticide approach when coping with carpenter bees. Dust formulations may be wafted through the entrance hole. Active adults will carry the dust deeper into the gallery system. Preventative sprays can be applied to exterior wood surfaces with the intent of killing carpenter bees as they contact treated surfaces. The results may vary depending on the thoroughness of treatment applications and the deterioration rates of the treatments per se. In Kansas, there are 229 insecticide products registered for use against carpenter bees. Visit various local retail outlets and speak with store personnel to determine which product(s) they market for use against carpenter bees.

One final word on carpenter bees: their gallery excavations can serve as a decorative function (Figures 10 - 12).

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Figure 10 (Front view)



Figure 11 (Backside)



Figure 12

Billbugs are not "bugs".....

Despite their name, billbugs are not "bugs", but rather, beetles. Possessing an elongated "snout" with chewing mouthparts, they are (more specifically) a type of weevil (Figure 13).

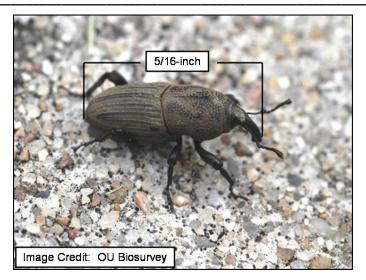


Figure 13

It is appropriate to address billbugs now: Over a recent noon hour, I observed several beetles on my driveway.

Because the beetles are weak fliers, they migrate by walking. Beetles deposit eggs into holes chewed into stems and crowns of grass hosts. Newly-emerged larvae feed and tunnel within until such time that an increase in their size necessitates them exiting plants. They enter the soil and complete their development by feeding on grass roots. Next, mature larvae construct little earthen chambers within which they pupate. The newly emerged adults will seek (again, by walking) overwintering shelter beneath surface litter in nearby hedge rows, tree lines, ditch areas and building foundations.

Lush turf can withstand low numbers of billbugs. However, when billbug numbers are excessive, damage can result. To treat or not to treat for billbugs depends upon prior years' experiences.

Preventative treatments are best applied to turf at the time of the active billbug migration. Commercial turf managers have a wide array of active ingredients and insecticide products from which to choose --- in Kansas, there are 428 and 627 products registered for use in Kansas against bluegrass and lawn billbugs, respectively. The list of products marketed for homeowner use is more restricted. It is incumbent on homeowners to visit various local retail outlets and speak with store personnel to determine which product(s) they market for use against billbugs associated with turf. Active ingredients such as bifenthrin, cyfluthrin and lambda-cyhalothrin are intended to kill adult billbugs before they deposit eggs whereas the systemic imidacloprid active ingredient more targets billbug larvae as they feed on vegetative and root tissues. Commercial turf managers have a greater array of active ingredients and products from which to select their preferred insecticide.

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Sincerely,

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