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Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants, and Extension Personnel

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Alfalfa Weevils:

Alfalfa weevil larvae continue to actively cause damage. Extensive sampling of fields south of I-70 in Central Kansas on 27th of April indicate most larvae are nearing maturity and probably will be pupating within the next 5-10 days. Most plants were at least 16 in. in height. Thus, untreated fields will continue to have larval feeding for ca. a week before larvae begin pupating. Insecticide treatments at this time are probably not justified economically. However, as untreated fields or those treated prior to mid-March are cut it is important to monitor the stubble, as remaining larvae and adults (as few as 4-8/FT²) may retard or prevent regrowth.

Larvae north of I-70 seem to be about a week behind these south of I-70. Thus, if fields exceed the treatment threshold, treatment is still probably justified for the next 5-7 days. After that, early cutting with stubble monitoring would probably be prudent instead of insecticide application.

Jeff Whitworth

European Pine Sawfly Approach Finish Line:

Time flies when you're having fun. Since March 26, European pines sawflies have been "having fun". And with this week's warmer temperatures, EPS larvae are on the brink of completing their development. Congregated larvae are rapidly consuming entire needles causing denuded twigs and branches (Figure 1). It is at this point that many people first become aware of the presence of EPS when they observe pines after they have been severely defoliated (Figure 2).



Figure 1



Figure 2

Action to take? Insecticide considerations (see Issue #7, April 16) are appropriate (although a bit late in having prevented damage) in terms of killing larvae before they form the cocoons inside of which they pass summer. Spraying after cocoon formation (Figures 3 and 4) is futile because larvae are protected within.



Figure 3



Figure 4

An alternative tactic is to do nothing at this point in time. Rather, allow European pine sawfly to run their course. Adult male and female sawflies will emerge in the fall and mate, after which overwintering eggs will be inserted into needles. Then, next spring, be on the alert for the initiation of 2005 EPS activities. Then apply a timely insecticide application to eliminate larvae.

If You Haven't Burned Yet.....

Pine wilt disease has lost some of its "sting" because (after its dramatic appearance several years ago) people have become accustomed to its widespread occurrence or presence. There is a degree of futility when it comes to pine wilt because there is no preventative action (i.e. spray program) against the "pine sawyer" beetles (Figure 5) which serve as the vector of the pinewood nematodes.



Figure 5

Nor is there any way to predict which tree(s) will fall victim to pine wilt disease. Thus homeowners may lose highly valued specimen trees (Figure 6). Landowners will be faced with gaps in the windbreaks (Figure 7) which they have worked hard to establish. Owners of Christmas tree plantations will lose trees to pine wilt (Figure 8). For a review of pine wilt disease, refer back to the Issue #4 of the Kansas Insect Newsletter (April 25, 2003).



Figure 6



Figure 7



Figure 8

The best that one can hope for in trying to prevent the incidence of pine wilt disease is to reduce current-season infection rates by eliminating trees which died the previous fall. These trees serve as hosts to the overwintered pine sawyers which (after they emerge from their pupae) become passive vectors of dispersal stage pinewood nematodes which infiltrate the beetle tracheal systems. This, then, will be the source of the current-season infections. Beetle emergence will begin in mid-May. Thus time is running out on marking/identifying infected trees (Figure 9), cutting them (Figure 10) and burning them (Figure 11). Removing and burning trees once past the beetle emergence period would be akin to closing the barn door after the horses are out.



Figure 9



Figure 10



Figure 11

Ash-lilac Borer Activities:

On Sunday, April 25, the first ash/lilac borer moths (Figure 12) were captured in pheromone sticky traps (Figure 13) at a Manhattan residential site. This is 5 days later than was recorded in 2003. For a review of ash/lilac borers, refer to Issue #4 of the Kansas Insect Newsletter (April 25, 2003).



Figure 12



Figure 13

Insecticide applications to protect against ash/lilac borers should begin immediately. Because ash/lilac borer moths deposit their eggs in the cracks and crevices of the bark, trunks and larger lower branches should be completely treated. It is therefore important to use adequate water carrier to ensure that surfaces in cracks and crevices receive thorough coverage. Treatment residues are intended to kill newly emerged larvae when they attempt to bore into trunks and branches. The two commonly used active ingredients are endosulfan and permethrin. These AI's are incorporated into a wide array of insecticidal products produced by numerous manufacturers. It is incumbent on the end-users/general public to read individual product labels to ensure the safe and legal use of retail insecticides.

In The Garden.....

Cabbage and broccoli are two to the favorite early-season vegetables appearing in many spring gardens. While direct seeding is one method of establishment, cabbage and broccoli transplants (Figure 14) allow gardeners to get-a-jump on the season. Of course, there are competitors for these vegetables. Different species of cutworms (Figures 15 and 16) frequently cut plants off at ground level. It is important to inspect plantings on a daily basis (preferably early in the morning) for cut plants lying on the soil surface. Often times, cutworms can be found by scratching the soil just beneath the soil surface in the vicinity of the cut plant. Exposed cutworms can be hand-picked and disposed of. Or, some people may opt to drench the soil surface with a disclosing solution (fancy words for a mixture of a tablespoon of a lemon-scented detergent mixed in a gallon of water), and hand pick the cutworms that wiggle to the soil surface.



Figure 14

Figure 15

Figure 16

The two common “cabbageworms” encountered in gardens are the fuzzy green larvae (Figure 17) of the highly recognizable imported cabbageworm butterfly (ICB) (Figure 18) (already seen actively flying in mid-March), and the green “naked” inch-worms (Figure 19) of the cabbage looper (CL) moth (Figure 20).



Figure 17



Figure 18



Figure 19



Figure 20

Plants should be inspected for the presence of eggs (Figures 21 & 22) and/or small larvae (Figure 23) as they begin feeding. It is best to eliminate larvae while they are small and before they have caused extensive feeding damage (Figure 24).

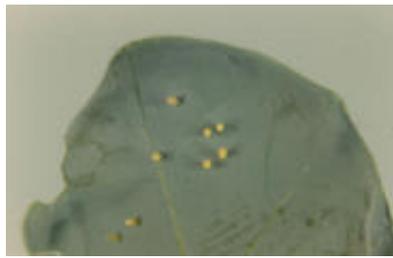


Figure 21



Figure 22



Figure 23



Figure 24

It should be pointed out that as disgusting as the larvae and their frassy deposits may be, usable produce can be “cleaned-up” by washing away the offensive elements, and salvaging the intact produce. This might actually be more appealing than using produce coated with excessive amounts of insecticides (Figure 25 & 26).



Figure 25



Figure 26

The judicious use of insecticides is, of course, an acceptable method of dealing with “cabbageworms”. The synthetic active ingredients carbaryl, endosulfan, esfenvalerate, malathion and permethrin are formulated into a wide array of insecticidal products produced by various manufacturers. *Bacillus thuringiensis* (Bt), spinosid, rotenone and a rotenone/pyrethrin mixture are alternative for gardeners preferring to use “organically acceptable” products.

Bob Bauernfeind

NEW CASES OF BED BUG INFESTATION IN KANSAS THIS YEAR:

New cases of bed bug infestation in apartments, one in Lawrence and two in Manhattan, have been reported this year. I wrote a newsletter on this topic last year, please take a look at the issue No. 18 from Aug 1, 2003.

Here is some additional information. Make sure that you check your luggage when you travel (overseas and in the U.S.) if you suspect the bed bug infestation (mainly motels and hotels). Bed bugs are active at night only, so you will not transfer them on your body, however, they might accidentally hide in your travel baggage and this way you can bring them to your house.

For heavy infestations, the best approach is to contact a pest control company. If you decide to treat yourself, make sure that you use insecticides that are approved for bed bugs and specific sites. For example, there are only few insecticides that can be applied to mattresses. Those include for example: *PT 565XLO* by Whitmire (contains pyrethrum) and *Lice/Bedbug killer* (Pyrethrum and permethrin).

Make sure you read and follow instructions!



Photo by Bobby Brown, K-State

Ludek Zurek

Correction on the information for the new West Nile virus vaccine for horses:

Two weeks ago I wrote in the newsletter that people who decide to switch from the old vaccine for WNV (Innovator from Fort Dodge) to the new vaccine (Recombitek by Merial) have to start the vaccination program all over - two doses this spring. This is NOT correct. Merial just released a new study comparing the efficacy of both boosters. Based on these results, the booster by Recombitek is good enough this spring even if you vaccinated with Innovator last year.

Ludek Zurek

Weekly Report from the Kansas State University Insect Diagnostic Laboratory:

The following samples were submitted to the Insect Diagnostic Laboratory from April 23 to April 28, 2004:

- 4-23-2004, Douglas County: Bed Bugs in home.
- 4-23-2004, Harvey County: Varied Carpet Beetles in home.
- 4-23-2004, Graham County: Cabinet Beetles in home.
- 4-23-2004, Johnson County: Lone Star Tick.
- 4-23-2004, Shawnee County: Elm Leaf Beetles in home.
- 4-26-2004, Riley County: Wheel Bug on house.

4-27-2004, Sedgwick County: Lecanium Scale on Honeylocust.

4-27-2004, Riley County: Sawfly Larvae on Scots Pine.

4-28-2004, Riley County: Bed Bugs in home.

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

Bobby Brown

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Sincerely,

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