For Agribusinesses, Applicators, Consultants and Extension Personnel



Department of Entomology 123 West Waters Hall K-State Research and Extension Manhattan, Kansas 66506 785-532-5891 http://www.entomology.ksu.edu/extension

April 17, 2009 No. 5

Winged Ants and Termites

The Insect Diagnostic lab is starting to receive samples of winged ants and winged termites. These are both common in Kansas this time of year and may continue throughout the spring and early summer. Both ants and termites live in large colonies and as temperatures begin to warm, winged reproductives leave existing colonies to start new colonies in other locations. If these ant or termite colonies are in or near homes, they can create quite a nuisance for homeowners as these winged insects often emerge by the hundreds/thousands.

It is important to distinguish the difference between a winged ant (photo 1) from winged termite (photo 2), as they require very different control measures. See Figure 1 for some characteristics used to determine which insect you have. It is important to note that after mating and landing in a location, these insects "shed" their wings. So, look carefully to see if the insect has scales, or little wing remnants (photo 3).



Figure 1







Photo 3

Control: Ants

The presence of swarming ants can be impressive and may consist of hundreds of winged individuals. However, the presence of a swarm from a colony that is established does not mean that infestation levels are going to increase. The winged individuals will disperse and leave the colony permanently. If you find a few of these winged ants in your home, the best treatment is to vacuum them up and then throw the vacuum bag into an outdoor trash can. These ants probably wandered in by chance and are not likely to begin a colony inside your home.

Finding a swarm inside a home may mean that the colony is located somewhere inside the house or very near. In this case, you may want to take control measures to reduce indoor ant populations or to eradicate the colony.

April 17, 2009 No. 5

For more information on ants please visit:

http://www.oznet.ksu.edu/library/entml2/MF794.PDF

Control: Termites

The presence of swarmers may indicate that there is an existing termite problem in or around a home, but the swarmers themselves are not destructive and are not going to be successful at starting a new colony in your home. Unless the females land on moist soil, they will die within a short time. Like ants, once the termites have mated they will start to shed their wings and homeowners may find wingless swarmers or wings lying around in window seals. These insects can be removed from the home by vacuuming them up and placing the vacuum bag in an outdoor trash can. If termite swarmers are found, the home should be inspected for other signs of termites. Common symptoms of termite infestations include tube shelters built between the soil and wooden structures and the presence of mud-filled joints in wood framing, paneling, and trim in finished areas of a structure. In many cases, wood damaged by termites goes undetected. If termite damage is suspected, probe wood near a foundation with an ice pick or similar tool. If the wood is soft and easily punctured, termites should be suspected. Termite infestations are best treated and controlled by a professional pest control operator.

For more information on termites please visit:

http://www.oznet.ksu.edu/library/entml2/MF722.PDF

For additional photos of winged ants and termites please visit:

http://www.entomology.ksu.edu/DesktopDefault.aspx?tabid=729

Holly Davis

Asparagus Beetles.....

"Peek-a-boo. I see you" – a game that we have all played at one time or another. In lieu of a toddler, step into your asparagus patch and play the game with the common **asparagus beetle**. It is almost comical – spot a beetle on a spear, sneak up on it, and invariably it will slip around to the opposite side. Then approach it from the opposite side only to have it move back to where you originally spotted it.

The asparagus beetle (Figure 1) is beautifully colored and patterned. Their wing covers are bluish-black, and bordered by reddish-orange margins. Each wing possesses 3 yellowish to cream-colored square spots. The prothorax (area immediately behind the head) is reddish-orange.



Figure 1

Asparagus beetles overwinter beneath debris in and around gardens/asparagus beds. Initiation of their seasonal activities coincides with the appearance of the first asparagus spears poking through the ground. After mating (Figure 2), eggs are deposited "on end" in straight rows (Figures 3).



Figure 2

Figure 3

Within a week, larvae emerge and immediately begin feeding (Figure 4). Larvae develop rapidly. Mature 1/3-inch long plump soft-bodied "wrinkled" larvae are dull grey with black head capsules and legs (Figure 5).

April 17, 2009 No. 5



Figure 4

Figure 5

Larvae next burrow into the ground where they enter a 1-2 week pupation period. Newly emerged beetles repeat the cycle. In Kansas, asparagus beetles produce (certainly) 2 to (possibly) 3 generations per year. In response to cooler late-fall temperatures, beetles seek refuge in protected sites where they overwinter.

Two types of damage are attributable to the asparagus beetle: Decreased marketability of produce may be a result of the presence of eggs on spears (Figure 6) and/or visible feeding damage (Figure 7). For home use, spears that might not be considered "market quality" are still usable. Eggs can be removed with washing/rubbing and rinsing in water. And despite some gnaw marks, spears are perfectly edible.



Figure 6

Figure 7

During the asparagus production period, a couple of approaches can be used to counter asparagus beetle activities. A cultural practice would be harvesting spears regularly and cutting them off cleanly and deeply to deprive beetles access to egg-laying sites. Controlling asparagus beetles is also important when establishing new asparagus beds and after the completion of harvest when plants normally produce ferns (Figure 8). Failure to control asparagus beetles result in excessive defoliation (Figure 9) which will decrease the photosynthetic capacity of the plants to fully feed and build root reserves.



Figure 8

Figure 9

Insecticides may play a role in home gardens. During the harvest period of asparagus spears, insecticides can be used against asparagus beetles <u>if used in compliance with post-treatment harvest interval guidelines</u>. And after the production period, insecticides can be used to protect asparagus ferns by targeting egg-laying adults and/or eliminating foliar-feeding larvae. Several active ingredients are registered for use against asparagus beetles and include carbaryl, malathion, permethrin and horticultural oils (the latter against larval stages). There is a slight dilemma: for instance, currently for 2009 in Kansas, there are 729 different products containing permethrin. Not all are registered for use on asparagus and asparagus beetles. And not all retail outlets market/sell the same line of products. It is up to the end-user to select the correct product. This requires that people **MUST READ PRODUCT LABELS!**

What about using a product if the "target pest" is not listed on the product label? <u>Yes, if done in accordance</u> with **K.A.R Number 4-13-28** – Any pesticide may be applied for the purpose of controlling a pest which is not specified on the pesticide's label or labeling provided that: (a)(1) the pesticide's label or labeling authorizes application of the pesticide to the same crop, animal or site requiring application; (2) the pest to be controlled belongs to the same general group of pests intended to be controlled by the pesticide applied; (3) the pesticide's label or labeling does not specifically prohibit its application to the target pest to be controlled, or to the crop, animal or site to which the pesticide is to be applied; and (4) the application of the pesticide to the target pest, or to the crop, animal or site, has not been prohibited by rules and regulations promulgated by the secretary. (b) Each pesticide which is applied in accordance with the provisions of subsection (a) of this regulation shall be

April 17, 2009 No. 5

deemed not to cause any unreasonable adverse effects on the environment, nor to endanger the health, safety or welfare of the citizens of this state.

Thus, for instance, Product A containing the active ingredient rotenone may not be registered on asparagus, while Product B does carry the "asparagus site". But asparagus beetle per se is not listed on Product B. However under (a)(2), because Product B is registered on other beetle species, it can legally be used on the related asparagus beetles.

What about the **spotted asparagus beetle?** It is decidedly different in appearance (Figure 10),





life cycle and importance as an asparagus pest. Their initial appearance is later than that of the common asparagus beetle, and eggs are not deposited before the asparagus berries have formed (Figure 11) --- a time well after asparagus production has been completed and plants have been allowed to "fern out".



Figure 11

The larvae of spotted asparagus beetles bore into the berries and feed on the berry pulp, moving from berry to berry until they complete their development. After pupating in the soil, a second generation is produced in late summer.

Bob Bauernfeind

Alfalfa Weevil Larvae and Pea Aphids

Alfalfa weevils are slowly continuing to develop. Fields sampled in north central KS on 16 April had almost 100% of the stems infested and 95% were still 1st instars, although larger than last week.

Pea aphids (see photo) were detected in all alfalfa fields but populations were very thin and of no economic consequence. However, pea aphid populations need to be monitored as lady beetles and other beneficial insects usually help regulate them but we have seen many dead lady beetles in both wheat and alfalfa fields, probably die to the recent freezing temperatures. Pea aphid populations can increase dramatically in a short amount of time if optimum weather conditions return and beneficial insect populations are much reduced.



Wheat

Four (4) Hessian fly flax seeds (puparia) were collected from one wheat field in north central KS. No other insect or mite pests were detected.

Jeff Whitworth

Report from the Kansas State University Insect Diagnostic Laboratory:

The following samples were submitted to the Insect Diagnostician Laboratory from April10th to April 16th.

April 13 2009 – Reno County – Winged carpenter ant in home April 14 2009 – Reno County – Winged Eastern subterranean termites in home April 16 2009 – Harvey County – Winged carpenter ant in home

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,

Robert J. Bauernfeind Extension Specialist Horticultural Entomology phone: 785/532-4752 e-mail: <u>rbauernf@ksu.edu</u> Holly Davis Insect Diagnostician Phone: (785) 532-4739 email: holly3@ksu.edu Jeff Whitworth Extension Specialist Field Crops Phone: (785) 532-5656 email: jwhitwor@ksu.edu



K-State Research and Extension is an equal opportunity provider and employer. Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Councils, Extension Districts, and United States Department of Agriculture Cooperating, Fred A. Cholick, Director.