

<http://www.oznet.ksu.edu/entomology/extension/extension.htm>

Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants, and Extension Personnel

Department of Entomology
239 West Waters Hall
K-State Research and Extension
Manhattan, KS 66506-4027

Tel: 785-532-5891
Fax: 785-532-6258



June 1, 2007 No. 14

MOSQUITO POPULATIONS ARE ON THE RISE

With the rainy spring this year, mosquito larvae have plenty of standing water to develop. This accounts for the recent increase of mosquito populations. While the peak season for the most common vector of the West Nile virus – *Culex spp.* mosquitoes – is in late summer and early fall, it is important to take precautions now.

Mosquito population management is best achieved by directing control efforts towards their larval stages which develop in standing water. Eliminate breeding sites by dumping and eliminating all containers in which water can collect. Apply larvicides to larger standing bodies of water (drainage ditches, ponds). Preventing mosquito bites is best achieved by using DEET repellents, or soy oil-based repellents (for small children). Details on mosquito biology, West Nile virus, and effective repellents and larvicides are available at the following website: <http://www.oznet.ksu.edu/library/ENTML2/MF2571.pdf>

Ludek Zurek

Time to get bins ready for wheat harvest:

It is time to get the grain bins cleaned and treated and to decide if grain going into storage is going to need to be treated with a protectant insecticide. To help make those decisions refer to the publication Stored Grain Insects, Part III: Structural sprays, pest strips, protectants and surface sprays. This publication is now available on the web at: <http://www.oznet.ksu.edu/library/entml2/MF917.PDF> Or our web page at: <http://www.entomology.ksu.edu/DesktopDefault.aspx?tabid=628>

Over the past few years there have been many changes in products that are labeled to treat grain and grain storage areas. One new product for this season is Diacon-D which contains the insect growth regulator methoprene. This product is a dry formulation containing the same active ingredient as the liquid formulation Diacon II.

Phil Sloderbeck

Armyworms

Armyworms continue to be very active throughout the eastern two-thirds of Kansas, especially in wheat, but reports of armyworm feeding on fescue and brome have also been received. As previously reported, armyworms may be variously colored, but some shade of dark green to black with a faint off-white colored stripe down their back and an intermittent black-pink/orange stripe down both sides, seems to be most common. These are robust worms with a cutworm-type behavior, i.e. they can usually be found during the day in a curled-up position under foliage or under the leaves along the row at the base of the plants. They feed mostly at night or occasionally on very cloudy days. Armyworms will feed on any part of the wheat plant, even beards, stems, and less frequently the developing grain. Armyworms have multiple generations in Kansas, thus they will be with us throughout the rest of the growing season providing the potential to damage corn and sorghum. We always have armyworms, but the magnitude of this year's infestation may mean we have higher infestation levels later in corn and sorghum. Seed-applied insecticides will probably not provide adequate protection against armyworms as most of the effectiveness will last 21-28 days and is not usually very effective against lepidopterous larvae, which armyworms are. Most of the current armyworms will be pupating within the next 5-14 days, then should not be a problem for 3-4 weeks due to pupation and egg laying. Corn and sorghum scouting then should take into consideration the potential for higher-than-normal armyworm infestations. If you are considering insecticide treatment on wheat please pay particular attention to the pre-harvest interval as we are getting closer to harvest. Armyworms do most of their feeding, and consequent damage, during the last few days. Thus, expect to see more damage before the problem goes away. Consult the KSU Wheat Insect Management Guide (2007) for registered insecticides and pre-harvest intervals at

<http://www.oznet.ksu.edu/library/ENTML2/MF745.PDF>



Armyworm



Damage



2nd picture of Armyworm

Photos are courtesy of Brook Mitchell, a field marketer from MKC.

Jeff Whitworth

Pillbugs

Pillbugs or roly poly's are again active in south central Kansas in no till or reduced till soybean fields. This is becoming a perennial problem but only in minimum tillage situations. This is because the crop residue which is left in the fields to help retain moisture does just that, it holds the moisture which is necessary for the pillbug's existence as they are crustaceans, not insects. Pesticide application has not been consistently effective because the crop residue also protects the pillbug which feeds underneath and thus doesn't come into contact with the toxicant. If you are planting soybeans into a minimum tillage field with previous pillbug infestations, or replanting due to pillbug feeding, you may want to consider using insecticide-treated seed. In Dr. Wilde's trials over the last couple of years, insecticide seed treatments significantly reduced the amount of damage due to pillbug feeding but did not eliminate it. Thus, seed treatments will help, and are economically advantageous, but do not expect consistent, 100% protection against these little crustaceans.



Pillbugs

Jeff Whitworth

Slugs

Received one report about slugs feeding on soybeans in south central Kansas. This is very unusual in Kansas, but does occur in other parts of the country on a fairly frequent basis. Much like a pillbug infestation, slugs are only a problem where moisture is plentiful, i.e. in minimum tillage situations. Slugs are mollusks and will feed on soybeans, corn, etc. depending upon what is available when they are present. If you experience seedling losses due to slug feeding there is little in the way of a rescue treatment that is economically feasible. Molluskicides and baits are available but probably not justified. Late planting, after the slugs have passed through the damaging stage and/or if fields dry out sufficiently, should eliminate the slug problem.



Slugs

Jeff Whitworth

Wooly..... but not Bo Peep's sheep ----

Seemingly at this time of year, several reports filter in regarding sticky situations beneath silver and sugar maple trees. Looking up, the twigs and branches appear to be covered by a coat of white woolly material. With a closer look, it can be seen that the branches are crowded with masses of aphids.



Densely packed

These are woolly aphids. While originally thought to be woolly alder aphids, in fact, these aphids were identified as woolly brier aphids --- more practical in the sense that green brier is very common in Kansas, as opposed to alder.



Woolly brier aphids

What looks like wool is far from being wool. Rather, woolly aphids possess wax glands through which they extrude waxy strands which account for their flocculent appearance. And when masses of aphids are crowded, entire branches appear to be covered in wool.



With "wool"

Woolly aphids have interesting seasonal life histories. They overwinter as eggs on their primary host where several generations occur. Eventually they fly to their summer host where they produce several generations. For the most part, the summer generations are out-of-sight because they are underground feeding on roots. In the fall, woolly aphids return to their primary host where sexual forms are produced resulting in the production of the aforementioned overwintering eggs.

In the case of woolly brier aphids, the overwintering primary hosts are sugar and silver maple. The population explosions observed in late May through mid-June cause concern for the health of the infested trees. The aphids insert their stylets into the phloem conductive tissues which are filled with sugar-rich photosynthates being transported downward into the roots. Aphids continually "suck sap". The result is that their sticky

liquid excrement (“honeydew”) coats whatever lies beneath the infested trees such as motor vehicles, swing sets, driveways, sidewalks, hammocks, etc. **Yet, the aphids are not detrimental to the health and vigor of their host.**

By mid-June, aphids seek their summer host plants: green brier. In the meantime, rains/hoses wash away/eliminate the sticky deposits. And, the good news is that seldom are there repeat incidences on the same maple tree hosts.

Bob Bauernfeind

Periodical cicadas in Kansas?.....

Given the many currently televised and newsprint releases showcasing periodical cicadas in the upper mid-west, inquiries have been received from several Kansas news organizations as to when we can expect the activities to begin in Kansas. For once, an accurate prediction can be made: **May, 2015!**

The current 17-year periodical cicadas in the upper Midwest are Brood XIII periodicals. Kansas has **Brood IV 17-year periodical cicadas**. Brood IV last emerged on 1998. Thus, $1998 + 17 \text{ years} = 2015$.

Kansas does have a number of species of “annual” cicadas. Although “annual” cicadas require 2-4 years for their development, some which emerge each year which gives them the appearance of having a 1-year life cycle. Please refer back to: **Part 2 – What’s the buzz?** which appeared in Kansas Insect Newsletter #22, August 25, 2006. Past Kansas Insect Newsletters are electronically available at: <http://www.entomology.ksu.edu/> Click onto “Extension”. Click onto “Newsletters”.

Bob Bauernfeind

Accumulated GDD’s – March 1 – May 23

.....

Baxter Springs – 996.5; Clyde – 717; El Dorado – 842; Elkhart – 657.5; Ellsworth – 795.5; Emporia – 829.5; Garden City – 662.5; Hays – 647; Hiawatha – 778; Hutchinson – 797.5; Independence – 968.5; Kansas City – 825.5; Lawrence – 812; Manhattan – 808; Newton – 772; Olathe – 809.5; Pittsburg – 990.5; Saint Francis – 431.5; Salina – 795.5; Topeka – 870.5; and Wichita – 845.5.

Bob Bauernfeind

Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned.

Sincerely,

Robert J. Bauernfeind
Extension Specialist
Horticultural Entomology

Phil Sloderbeck
Southwest Research and Extension Center
Entomology - Garden City, KS

Jeff Whitworth
Extension Specialist
Entomology (Crops)

Ludek Zurek
Medical Entomologist