

# Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants and Extension Personnel



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July 16, 2010 No. 17

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## A View From Afar ..... In Naperville

Taking a break to be with Family. And to proudly show-off Jaylen Robert Lin GRANDSON #1.



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## **BUT THINKING OF KANSAS ..... Bagworms and Annual White Grubs**

**Bagworms** – Nearly a month ago (KIN #13, June 18), I was “jumpy” regarding bagworms. At that time, I noted that there were some Eastern red cedar and Junipers already showing signs of bagworm. I recommended applying sprays to reduce bagworm populations that seemed to be (already at that time) overwhelming their hosts.

Before leaving Kansas (July 11), I noted numerous Eastern red cedar and Junipers in need of treatments (including those in my backyard --- which I sprayed). So if clientele within your respective counties have yet to spray, a note in your respective Newsletters might remind people of the need to treat. Bagworms are now like the proverbial snowball that starts out small at the top of the mountain, but half way down rapidly becomes increasingly bigger as it nears the bottom ----- bigger bagworms consume increasingly greater amounts of foliage, thus imperiling “evergreens” with each passing day. However, once bagworm populations are minimized, new re-growth will eventually restore a tree’s normal “healthy”/green appearance.

**Annual White Grubs** – Annual white grubs are the larval stages of “masked chafers” and Japanese beetles. They are the “the grubs” which cause damage to turf/lawns. Masked chafers are native throughout Kansas while non-native Japanese beetles have become established in restricted areas of the state. Thus in some situations, both species may be encountered in the same “trouble spot”. But both can be treated/regarded as one.

Grub control can be approached in either a preventative or rescue mode. At this time, the preventative mode will be considered. Options include long-residual systemic insecticides or short-residual contact insecticides. For systemic products, there is a wider window-of-use because the active ingredients imadacloprid (Merit), clothianidin (Arena), thiamethoxam (Meridian) and chlorantraniliprole (Acelepryn) are taken into the grass roots upon which the grubs feed. Many people may already have applied one of these materials. But if not, there is adequate time for their use.

Using contact insecticides requires that people be more precise with the timing of their application. An optimal 10-day application window is based beetle flight peaks. The rule of thumb is that carbaryl (Sevin) and trichlorfon (Dylox, 24-Hour Grub Control) products be applied 30-40 days after the flight peak. This coincides with time that all eggs should have hatched and 90% of the grubs will be small 1<sup>st</sup> and 2<sup>nd</sup> individuals (Figure 1).

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**Figure 1**

To determine this 10-day window, chafer flight patterns can be monitored utilizing a blacklight trap (Figure 2) to capture a night's activities.



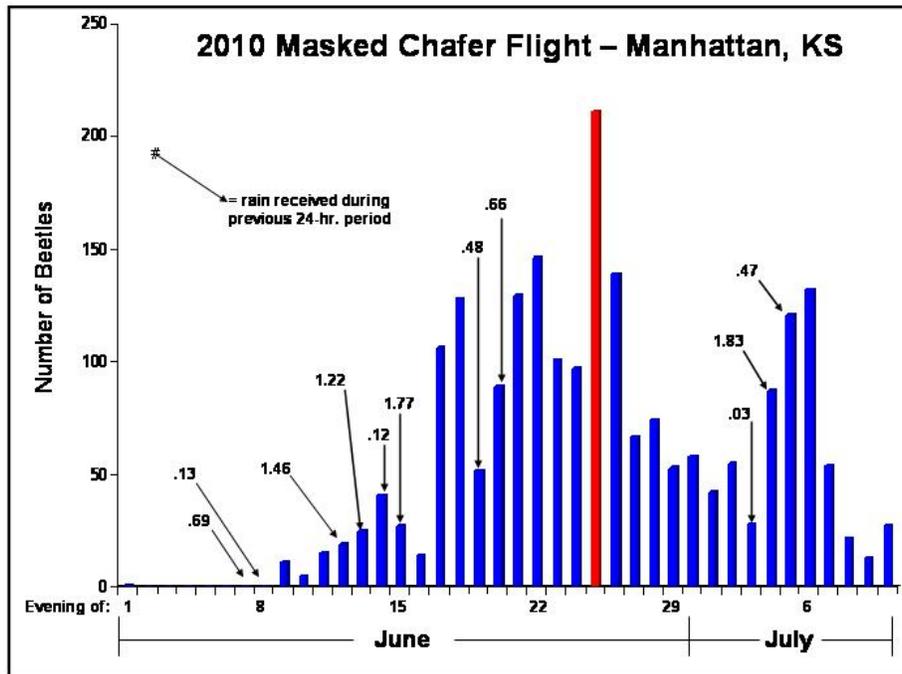
**Figure 2**

Over many years of trapping, a rough rule-of-thumb is that flight peaks frequently occur around July 4. There is, of course, some variation between years and locations in Kansas.

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The following graph represents the 2010 flight pattern in Manhattan:



The flight peaked the evening of June 25, 10 days earlier than “normal”. And this may be representative for most of Kansas. The 2010 optimum treatment window is July 25 – August 4. While absolute precision is not paramount, the 10-day difference might be considered substantial.

Steps to be taken to ensure treatment effectiveness when using carbaryl and trichlorfon insecticides:

1. Calibrate drop spreaders to ensure proper granular insecticide delivery rate.
2. Use vertislicer, power rake or core aerator to create passage ways through thatch.
3. Irrigate prior to application.
4. Apply insecticide.
5. Apply a post-treatment irrigation according to product label.

*Bob Bauernfeind*

## Sunflower Moth Migration is Underway

As early planted sunflowers approach flowering, it is time to monitor fields for the presence of sunflower moth. The moth has already completed 2-3 generations in more southern latitudes and weather conditions over the past week have been ideal for northerly movement. Pheromone trapping has revealed that moths are now arriving in Kansas. Although fields in bloom are the most attractive, moths will also enter fields prior to

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flowering and rest under foliage until flowers open. Fields in reproductive stages should be scouted every 2-3 days from R5 until R6 or petal fall.

Prevention of yield losses to sunflower moth depends on vigilant monitoring throughout reproductive stages of the crop. The need to spray can be clearly evident when moths are abundant, but in cases of uncertainty, it is best to scout fields around an hour after sunset. Use a flashlight to count the number of moths on the faces of 20 flowers and repeat this in five different parts of the field. Treatment is justified only when there are more than 1-2 moths per five plants.

Many growers do not bother to scout and simply apply an 'insurance' spray when sunflowers are around R5.1 or R5.2 (10 - 20 % of pollen shed). However, there are two possible drawbacks to this approach. The knowledge obtained by scouting may reveal that treatment is not justified, or can at least be postponed until further scouting in 2-3 days time, thus increasing the possibility that the cost of treatment can be avoided altogether. Second, since 'insurance' sprays are typically applied quite early, they may be insufficient to protect flowers throughout the entire flowering period, as many blooms will not be fully expanded. This may increase the probability that a second spray will be needed if moth pressure continues to be heavy. There is no substitute for real-time data obtained from careful observation of particular fields. Although sprays primarily target adult moths before eggs are laid, young larvae are also vulnerable because they feed almost exclusively on pollen during the first two instars. Thus, applicators should seek to maximize deposition of insecticide on the faces of the flowers.



*J.P. Michaud*

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## Japanese Beetles in Corn

Received additional reports regarding adult Japanese beetles feeding on corn silks in eastern Kansas. Thus, a little background regarding these beetles.

Japanese beetles, *Popillia japonica* Newman, are an invasive species which were first discovered in New Jersey in 1916. Infestations spread west and were reported from urban areas in Missouri by the mid 1900's. They were reportedly established in a rail yard in Kansas City, Kansas by the early 1980's and in other, isolated areas of the state, by the early 1990's. Well established infestations have existed primarily in Wichita, Topeka, and the Kansas City areas since at least 2004. These infestations were probably initiated by the larvae, white grubs, being transported to new locations in the soil of nursery stock containers. Once these beetles become established in an area, it is not unusual for the adults to start feeding on field crops, especially corn and soybeans. These insects will feed on just about any type of vegetation, with ornamentals, shrubs, and trees seemingly most preferred, then moving to field crops.



We have not established a treatment threshold or economic injury level for Japanese beetle feeding on either corn or soybeans yet as we really have not had that much reported damage, other than one field of each in 2009 and three fields of corn so far this year. But, Missouri and other states to the east have had considerable experience, so if you are interested or think you may need to treat at some point, visit the Missouri Extension Entomology website at: <http://extension.missouri.edu/> for their recommendations relative to corn and soybeans.

*Jeff Whitworth*

*Holly Davis*

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## Report from the Kansas State University Insect Diagnostic Laboratory:

The following samples were submitted to the Insect Diagnostic Laboratory from July 9<sup>th</sup> to July 15<sup>th</sup>.

- July 9 2010 – Sedgwick County – Mealybugs on oak
- July 9 2010 – Wyandotte County – Digger bees under porch
- July 9 2010 – Leavenworth County – Pine needle scale on Austrian pine
- July 9 2010 – Phillips County – Spruce spider mites on spruce

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July 9 2010 – Edwards County – European fruit lecanium on redbud  
July 12 2010 – Jackson County – Possible codling moth damage to peach  
July 12 2010 – Franklin County, Missouri – Springtails on pet rabbits  
July 12 2010 – Atchison County – Lesser house fly and carpet beetle larva from home  
July 12 2010 – Leavenworth County – Orb weaver spider around home  
July 12 2010 – Anderson County – Magnolia scale insects on magnolia tree  
July 13 2010 – Riley County – Carpet beetle larvae in home  
July 13 2010 – Rooks County – True bug nymphs in barn  
July 13 2010 – Edwards County – bagworms on conifer  
July 13 2010 – Brown County – Roly Poly gall  
July 13 2010 – Haskell County – Stink bug nymphs around home  
July 13 2010 – Labette County – Leaf beetle feeding damage on hollyhock  
July 13 2010 – Mitchell County – American cockroach nymph in home  
July 13 2010 – Coffey County – Mottled tortoise beetle on tomato and potato  
July 14 2010 – Cherokee County – Negro bug on person  
July 14 2010 - Labette County – Fly maggots 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 [GotBugs@ksu.edu](mailto:GotBugs@ksu.edu).

*Holly Davis*

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**Sincerely,**

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