Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants and Extension Personnel

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July 31, 2009 No. 20

Monsanto, Dow AgroSciences Complete U.S. and Canadian Regulatory Authorizations for SmartStax Corn

SmartStax has received registration from the U.S. Environmental Protection Agency (EPA) and regulatory authorization from the Canadian Food Inspection Agency (CFIA) and remains on track for a 2010 commercial launch. SmartStax uniquely features a combination of insect control traits that significantly reduces the risk of resistance for both above- and below-ground pests. As a result, the decisions by the EPA and CFIA will allow reduction of the typical structured farm refuge from 20 percent to 5 percent for SmartStax in the U.S. Corn Belt and Canada and from 50 percent to 20 percent of the U.S. Cotton Belt.

Phil Sloderbeck

EPA Pesticide Program Updates

EPA's Office of Pesticide Programs 07/24/09
http://www.epa.gov/pesticides

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IN THIS UPDATE:

Comment Invited on Request for Azinphos-Methyl (AZM) Use Changes

EPA is requesting public comment on a request from azinphos-methyl (AZM) registrants to amend their registrations. These amendments would change the rate reductions for some remaining uses of AZM, and would extend the use of aerially applied AZM on blueberry crops in Michigan until the end of the AZM phase out in 2012. The registrants have not requested to extend use of AZM beyond the September 30, 2012, cancellation date for the remaining uses of AZM. The public comment period will close on September 21, 2009. Please submit comments to the AZM docket, EPA-HQ-OPP-2009-0365, at www.regulations.gov. To read the Federal Register Notice, see http://edocket.access.gpo.gov/2009/E9-17398.htm.

AZM is an organophosphate insecticide that was first registered in the United States in 1959. On November 16, 2006, EPA issued a determination that, due to farm worker and ecological risks, all remaining uses of AZM will be phased out by September 30, 2012. For more information on the AZM phase out, please visit http://www.epa.gov/pesticides/reregistration/azm/phaseout_fs.htm

EPA Pesticide Notices

In this week's Pesticide Program Update there are several Notices to consider for those in pesticide work.

Notice #1 has to do with voluntary cancellation of Methamidophos and Disulfoton.

Notice #2 has to do with cancelling certain registrations for a variety of pesticides, geared mostly at the general public who use pesticides, including: abamectin, chlorpyrifos, carbaryl, dichlorvos, permethrins, 2,4-D, dicamba, maneb and a variety of other general use active ingredients for insecticides, fungicides and herbicides.

EPA Pesticide Program Updates
From EPA's Office of Pesticide Programs 07/28/09
http://www.epa.gov/pesticides

1: Notice of Receipt of Requests to Voluntarily Cancel Certain Pesticide Registrations
Date of publication: July 22, 2009
Citation: Volume 74, Number 139; Page 36204-36208
http://www.epa.gov/fedrgstr/EPA-PEST/2009/July/Day-22/p17171.htm
Purpose: In accordance with section 6(f)(1) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, EPA is issuing a notice of receipt of requests by registrants to voluntarily cancel their registrations of products containing the pesticides disulfoton and methamidophos. The requests would terminate the last disulfoton and methamidophos products registered for use in the United States. EPA intends to grant these requests at the close of the comment period for this announcement unless the Agency receives substantive comments within the comment period that would merit its further review of the requests, or unless the registrants withdraw their requests within this period. Upon acceptance of these requests, any sale, distribution, or use of products listed in this notice will be permitted only if such sale, distribution, or use is consistent with the terms as described in the final order.
Chemical(s): disulfoton and methamidophos*
Comments: Submit your comments, identified by docket identification number: Disulfoton - EPA-HQ-OPP-2009-0054; Methamidophos - EPA-HQ-OPP-2008-0842, by one of the methods listed in the Federal Register Notice. Comments must be received on or before August 21, 2009.
Contact: Eric Olson for Methamidophos, Special Review and Registration Division Office of Pesticide Programs, Environmental Protection Agency; telephone number: (703) 308-8067; email address: olson.eric@epa.gov. and Eric Miederhoff for Disulfoton , Special Review and Registration Division Office of Pesticide Programs, Environmental Protection Agency; telephone number: (703) 347-8028; email address: miedeerhoff.eric@epa.gov.

2: Notice of Receipt of Requests to Voluntarily Cancel Certain Pesticide Registrations
Date of publication: July 22, 2009
Citation: Volume 74, Number 139; Page 36208-36215
http://www.epa.gov/fedrgstr/EPA-PEST/2009/July/Day-22/p17315.htm
Purpose: In accordance with section 6(f) (1) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, EPA is issuing a notice of receipt of request by registrants to voluntarily cancel certain pesticide registrations.

Chemical(s): various*
Comments: Submit your comments and your withdrawal request, identified by docket identification number EPA-HQ-OPP-2009-0135, by one of the following methods as listed in the Federal Register Notice. Unless a request is withdrawn by January 19, 2010 or August 21, 2009 for registrations for which the registrant requested a waiver of the 180-day comment period, orders will be issued canceling these registrations. The Agency will consider withdrawal requests postmarked no later than January 19, 2010 or August 21, 2009, whichever is applicable. Comments must be received on or before January 19, 2010 or August 21, 2009, for those registrations where the 180-day comment period has been waived.
Contact: John Jamula, Information Technology and Resource Management Division, Office of Pesticide Programs, Environmental Protection Agency; telephone number: (703) 305-6426; e-mail address: jamula.john@epa.gov.

Sharon Dobesh

Honeysuckle Aphid

Honeysuckle aphid (*Hyadaphis tataricae*) or honeysuckle witches-broom aphid is one of the most destructive insect pests of bush-type honeysuckles and damage is quite apparent in landscapes during this time of year. Aphids cause plant injury by injecting toxins or growth regulator-type substances with their saliva (spit) during the feeding process. The substances contained in the saliva stunt new growth causing twigs to branch into clusters called—"witches broom." Affected plants appear red-streaked, curled, with dwarfed leaves. This makes plants less aesthetically pleasing, (although I personally think they look "cool") in the landscape and infected branches may die during the winter. In general, feeding by honeysuckle aphid will not kill plants although plants may suffer extreme stress when heavy infestations are present.

Honeysuckle aphids overwinter as eggs, which are laid during the fall in buds and/or on the tips of branches. Eggs hatch in the spring, into wingless females, when the leaves on honeysuckle plants are expanding. Aphids that develop from eggs can give birth to live offspring (young) without mating. These aphids initiate feeding when leaves have fully expanded. Honeysuckle aphids are 1/16 inch long, cream-colored and feed on new shoots on leaf undersides and in folded leaves. Aphids tend to remain in the folded leaves, which protect them from natural enemies and weather. There may be multiple generations during the summer with only winged females being produced; however, in early to mid-fall winged males and females may be present. Mated females lay their eggs on honeysuckle shrubs.

The management of honeysuckle aphid includes the use of resistant varieties of honeysuckle, proper cultural practices, and use of insecticides. Honeysuckle varieties that have demonstrated to be tolerant of honeysuckle aphid are Arnold Red, Clavey's Dwarf, and Emerald Mound. There may also be newer varieties that exhibit tolerance to honeysuckle aphid. Appropriate watering and fertilization practices can also alleviate problems with this insect pest. For example, avoid over-watering and over-fertilizing plants, especially with nitrogen-based fertilizers, as these practices prolong infestations by stimulating succulent shoot growth. It is important to prune out, at least 6.0 inches below the initial damage, any witches-broom growth before buds break so as to remove any overwintering eggs. In addition to removing the unsightly witches-broom growth, pruning may reduce the severity of future outbreaks by eliminating a majority of the honeysuckle aphid population early in the season. However, any pruning that occurs after eggs hatch may lead to the production of new leaf growth that is highly susceptible to honeysuckle aphids resulting in extensive damage.

Systemic insecticides that are recommended to manage or regulate honeysuckle aphid populations include acephate (Orthene) and imidacloprid (Merit and many generics). These insecticides should be applied in the spring when new leaves are expanding and before newly-hatched aphids initiate feeding. In addition, these insecticides may provide some "control" of aphids within the folded leaves. Repeat applications may be warranted depending on the timing of application and extent of the infestation. Acephate may provide "control" for a month whereas imidacloprid should give season long "control." The benefit of using systemic insecticides is the long residual activity and preservation of natural enemies such as ladybird beetles that will prey upon the aphids in the folded leaves. Always be sure to read the label for instructions on the proper application method of these systemics.

Raymond Cloyd

Sunflower Moth Alert !

Commercial sunflower fields at or approaching bloom should be checked for sunflower head moth immediately. This is another year when substantial moth populations have colonized fields in advance of flowering. This means that farmers must be prepared to spray as soon as flowers open, and possibly again at R5.4 – 5.6. The threshold for insecticide application is 1 – 2 moths per five heads; some fields in central Kansas visited this week had > 2 moths per head – prior to bloom. Fields become increasingly attractive to moths as flowering commences. The moths are nocturnal, so if their numbers are not obviously high during a daytime visit, it is best to return to the field one hour after sunset and count moths on flower faces with a flashlight. Average the counts from at least five places in the field. If populations are below threshold, monitoring should continue until the R6 stage is reached. Flowers in early stages of pollen shed (R5.1 – 5.3) are preferred for oviposition, but fields remain susceptible right up until petal fall.

Adult

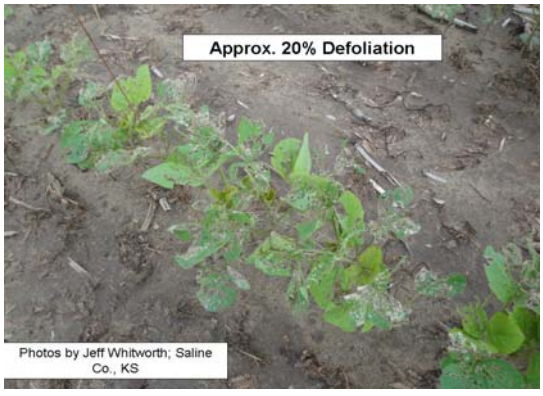
Adults on flower

Larvae

J.P. Michaud

Soybean Webworms

Webworms continue to be a serious problem in many fields in southeast Kansas, and are now affecting scattered fields in central Kansas. There actually is a complex of worms in the fields we visited consisting of yellowstriped armyworms, green cloverworms, and corn earworms, but by far (90-95%) the predominant defoliators are webworms. See photos for damage and affect of insecticide treatment approximately 14 hours post treatment.



Jeff Whitworth **Holly Davis**

Boring Subject Matter …….. Squash Vine Borers

In last week's Kansas Insect Newsletter, it was squash bugs. This week it is the second most common complaint with regard to a squash/pumpkin insect pest: the squash vine borer.

Figure 1 shows "healthy" squash Plant 1 early in the morning. But some of the leaves on Plant 2 look to be a bit limp.

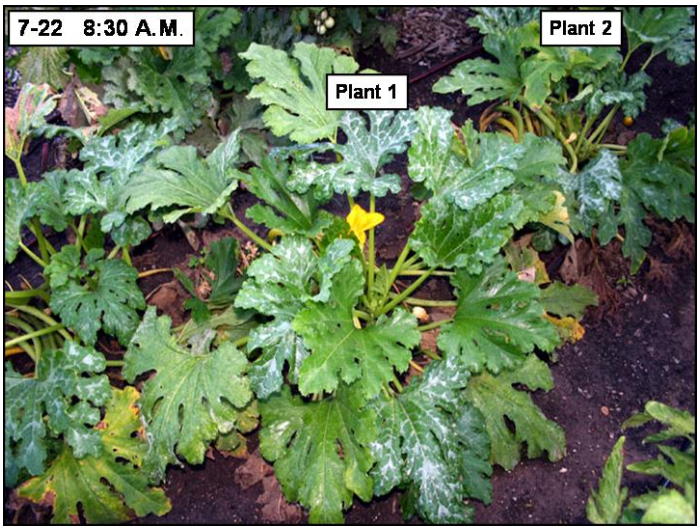


Figure 1

Several hours later, Plant 2 appears to be increasingly limp. And by late-afternoon looks like a deflated balloon (Figure 3).

Figure 2

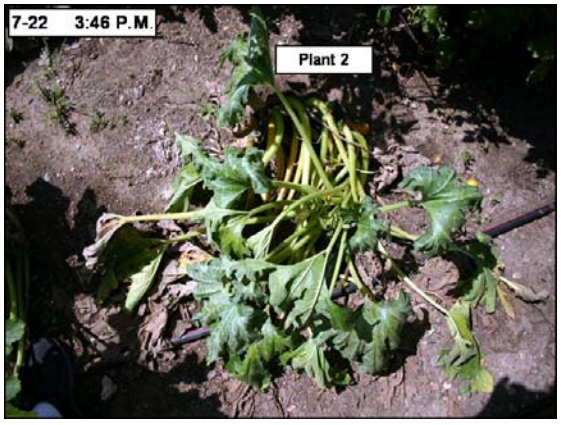


Figure 3

Yet early the next morning, the plant appears rejuvenated (Figure 4).

Figure 4

Why should this be? Upon close examination of the plant's stem, the answer becomes evident. The stem has an "unhealthy appearance" (Figure 5).

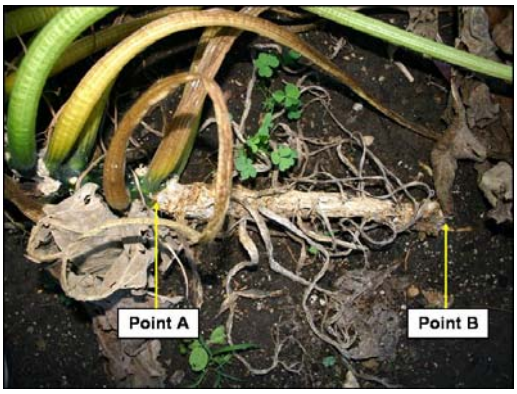


Figure 5

There is a definite division where beyond Point A, the stem appears green and healthy (Figure 6).

Figure 6

At the base of the stem, one can identify yellowish masses/exudations (Figure 7).

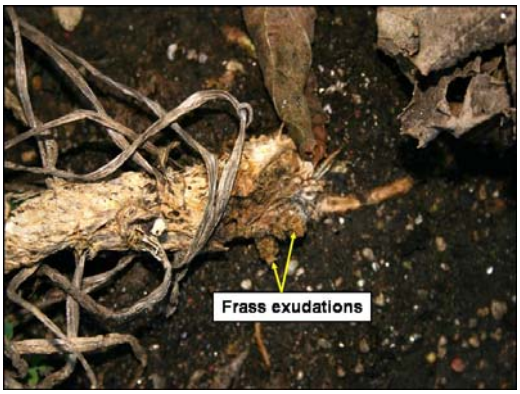


Figure 7

The yellow frass/fecal exudations are a giveaway to the presence of an internal pest: a squash vine borer (Figure 7) which is the larva of the squash vine borer moth (Figure 8).

Figure 7

Figure 8

There is little to be done at this point in time. The internal borer damage to the vascular transport system is irreversible. While remnants of the system remaining "in tact" may be adequate to allow the plant to recover during the cool of the evening (hence the early morning rejuvenated appearance), the plants will again wilt during the heat of the day when the transpiration rates far surpass the ability of the plant to adequately remain turgid. Over time, the plant will continue to decline, and will eventually die.

Some people will attempt to "rescue" a plant by slitting the stem, removing the borer, and then closing the slit. They will heap soil over the wound site and water and pamper the plant through "tough times". While this (sometimes) may be successful, in more instances, these are but futile attempts which end with the plant's death.

Extension Publication MF-2508, **Squash Bugs and Squash Vine Borers** is electronically available at: http://www.entomology.ksu.edu Click onto the Departmental Homepage, Click Extension, Click Publications, Click Distribution Center, Scroll to Horticultural Insects and the abovementioned Publication. Click on it.

Hang time …… Bagworms

With the approach of the 2009 football season, "hang time" has meaning: the amount of time a punted football remains in the air ---- the greater the trajectory of the football, the more time for the players to get down field to cover the kick. But this is not the "Sporting News". So let's deal with hang time in the realm of entomology.

Recently, when driving along residential streets, many bagworms were noted as they hung suspended on silken threads (Figure 9) from eastern red cedars.

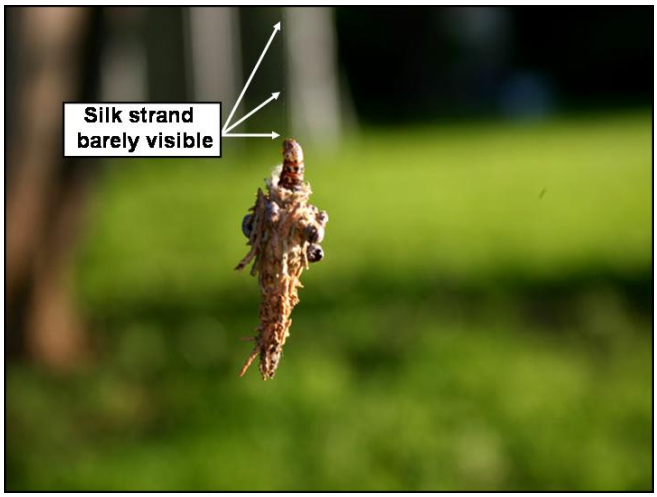


Figure 9

The same was noted suspended from red maples in southeast Kansas (Figure 10).

Figure 10

If and when bagworms deplete all available foliage on a particular host, they will descend to the ground and move "on foot" to the next available host (not necessarily the same host species) to complete their feeding requirements/development. The ease of their traverse from A to B depends on their "landing surface", and may range from easy to difficult depending on obstructions in their pathway (Figure 11).

Figure 11

The interesting thing about the current "drop" was that it occurred despite adequate amounts of remaining foliage upon which the partially-grown bagworms could have continued feeding. Likely then it was other undefined factors/stimuli that triggered their need to seek new hosts upon which to feed and complete their development.

There are two methods for lepidopteran larvae feeding in tree canopies to reach the ground: by climbing down trunks, or directly dropping to the ground surface. Regarding the latter, many [possibly most (?)] species have the ability to produce silken strands by which they lower themselves. This should not be confused with ballooning ---- a term reserved for **the passive dispersal of newly hatched spiderlings** which, when facing into wind raise their abdomens and extrude silken strands which serve as the "aeronautic" mechanism for wind currents to catch and carry "passengers" to distant sites.

One last word: when bagworms complete their feeding (mid- to late August), they permanently attach their bag via a strong highly visible silken "tie", close off the "front door opening" and do a 180-degree flip in the bag. With their heads then pointed down, they go into the pupation phase of their developmental cycle. IN MOST INSTANCES, THIS IS DONE ON THEIR HOST PLANT. Occasionally, they may leave the host and wander about. They will affix their bag to whatever substrate is available at the time that the signal to "close shop" is given. A fitting example is illustrated in the following figure:

B ob Bauernfeind

Ground Beetles Annoy Homeowners

The Insect Diagnostic Lab has had several inquiries about the Pennsylvania ground beetle, *Harpalus pennsylvanicus*, congregating in large numbers on the sides of homes and to some degree, getting indoors. These beetles are medium sized, (around 2 cm) are a dull black color with deep striations in the elytra, or wing covers, and characteristic orange legs (see photo). They are most commonly found in pastures, cultivated fields, and open ground and typically feed on caterpillars and seeds. These beetles may provide some benefit when significant populations feed on pest caterpillars and weed plant seeds, especially in agricultural settings.

The Pennsylvania ground beetle has strong mandibles (jaws) and may pinch when disturbed, however they do not sting or inject any toxins. Occasionally they will emit a foul-smelling odor when handled. These beetles are strongly attracted in large numbers to lights. In a residential setting, the best method of control is to avoid using outdoor lights at night, especially leaving porch lights, etc. on all night. These beetles will not become established in the home. If a few do wander indoors, they may simply be trapped and removed.

For more information on ground beetles in general, please visit:

http://ohioline.osu.edu/hyg-fact/2000/2102.html

Report from the Kansas State University Insect Diagnostic Laboratory:

The following samples were submitted to the Insect Diagnostician Laboratory from July 24th to July 30th.

July 24 2009 Reno County – Southern crimson moth on building
July 24 2009 Riley County – Cicada killers around home
July 28 2009 Clay County – Female adult Dobsonfly
July 28 2009 Saline County – Spined Micrathena spider
July 28 2009 Harvey County – Halictidae (sweat bees) in wooded area
July 28 2009 Neosho County – Cynipidae gall wasps on Oak
July 28 2009 Riley County – Brown recluse spider
July 29 2009 Johnson County – Handsome fungus beetle larvae in Elm trunk
July 29 2009 Douglas County – Bed bugs
July 29 2009 Johnson County – Aphids on white oak
July 29 2009 Barton County – Pennsylvania ground beetles around 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.

Holly Davis

Sincerely,

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