

In this issue:

1. *Protecting Honey Bees from Pesticides*
2. *Is this the year for Brown Marmorated Stink Bug in Ohio?*
3. *Southern Ohio Vegetable and Fruit Crop Update*

BMSB – photo Dave

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Protecting Honey Bees From Pesticides

by Barb Bloetscher, reprinted with permission from C.O.R.N. newsletter

Protecting Honey Bees From Pesticides. Extension educators are already getting calls from beekeepers and growers about protecting honey bees from pesticide applications. Technically, the best place to start is to read the Ohio Administrative Code 901:5-11-02 at <http://codes.ohio.gov/oac/901%3A5-11-02>

(B) No person shall:

(15) Apply or cause to be applied any pesticide that is required to carry a special warning on its label indicating that it is toxic to honey bees, over an area of one-half acre or more in which the crop-plant is in flower unless the owner or caretaker of any apiary located within one-half mile of the treatment site has been notified by the person no less than twenty-four hours in advance of the intended treatment; provided the apiary is registered and identified as required by section [909.02](#) of the Revised Code, and that the apiary has been posted with the name and telephone number of the owner or responsible caretaker.

(16) Apply pesticides which are hazardous to honey bees at times when pollinating insects are actively working in the target area; however, application of calyx sprays on fruits and other similar applications may be made.

In other words, anyone planning to make an application of a product that is labeled to be toxic to honey bees to a flowering crop which covers an area over a half acre in size must notify the beekeeper within 24 hours of the application. However that beekeeper must have the apiary posted with contact information so that the applicator can notify him/her. Ideally a sign should be posted by a road closest to the apiary stating that an apiary is in the area and contain contact information. If the beekeeper has registered the location, the Ohio Department of Agriculture (ODA) will have the location on file. Any grower/applicator can call ODA at 614-728-6373 and obtain a list of apiaries by location. This file is sent electronically usually within 24 hours of the request.

Beekeepers can help themselves by registering new locations early in the season so that the locations are in ODA's data system. They should also know who owns the properties near the apiary and remind them that the apiaries are nearby.

Ohio law requires that all apiaries are registered by June 1st. This information is given to the pesticide applicators when they call ODA to obtain apiary locations. Without the information on this form, the applicator does not know who to contact. If the contact information is not known or if the location is not registered, the beekeeper has no recourse if the bees are affected by a pesticide application.

If a beekeeper suspects that their bees were affected by a pesticide, they should make the following steps:

1) Contact their County Apiary Inspector.

2) Take pictures of the hives and collect as much information as possible including when the colonies last appeared to be healthy; personality of the colonies (actively flying, signs of nosema, etc.) direction of the wind, crops growing (or to be planted) in fields nearby; present activity of hives; dead drones? Dead pupae being kicked out?...etc.

3) Collect 50-100 bees in or on the bottom board and freeze asap. Do not collect bees that have been lying on the ground as they deteriorate quickly. Leave ~ 100 bees for ODA to collect. They will not take bees that have already been collected.

4) Contact the Ohio Department of Agriculture at Reynoldsburg Ohio. - 614-728-6373. An official will collect samples for testing. Call them as soon as possible as it may take 24 hours before they can arrive. They will try to determine the cause of the bees' death.

Keep in mind that planting a treated seed is NOT considered to be a pesticide application. The planter is planting a treated article. The company which treated the seed made the pesticide application, not the grower. The rules discussed do not apply to this situation.

ODA Apiary Website:

<http://www.agri.ohio.gov/divs/plant/apiary/apiary.aspx>

More information:

How to Reduce Bee Poisoning from Pesticides <http://extension.oregonstate.edu/catalog/pdf/pnw/pnw591.pdf>

Is this the year for Brown Marmorated Stink Bug in Ohio?

Jim Jasinski, OSUE, IPM Program; Celeste Welty, OSU, Dept. of Entomology

The Brown Marmorated Stink Bug (BMSB) is a non-native invasive pest detected in Pennsylvania in 1996. As of May, 2012, it has rapidly spread to more than 38 states and Ontario, Canada. This insect has one generation per year, sometimes two generations per year. The life cycle includes five instars within the immature nymph stage, ranging in size from 1/16 inch long in the first instar to 1/2 inch long in the fifth instar. They can feed on over 300 hosts including most fruits, vegetables, field crops, and many landscape plants.

Periodic sampling of many crops and landscape plants in Maryland in 2011 showed a sequence invasion of brown marmorated stink bugs into crops. The earliest populations were found on Paulownia trees in late May and on raspberries in mid-June. They were found on eggplant, okra, and peaches starting in late June. They were found in sweet corn and peppers in early July, on green beans and field corn in late July, and on soybeans in early

August. In most crops, they were more abundant on field edges than in field interiors. Orchardists in the mid-Atlantic region had some sighting of brown marmorated stink bugs as early as mid-April, and some fruit injury was noticed by late June, but most fruit injury seemed to be made in late July and August. More injury is noticed at the perimeter of orchard than interior. Orchards adjacent to woodlots had more injury than those not near woodlots.

Although this pest has caused significant damage to fruit and vegetable crops in states like W. VA, VA, MD, NJ, and PA over the past two years, the only confirmed report of significant crop damage in Ohio was in soybean and apple at an OSU research farm in Columbus in 2011.

That might change in 2012. There has been confirmed damage to some peach tree fruit north of Columbus, and reports of damage to fruit at a peach orchard on the east side of the state. No other reports of crop damage have been received to date.

In 2011, we established a monitoring network of 30 sites in 17 counties spread across the state. From May through October, we captured 163 BMSB in Columbus and 3 BMSB in Scioto County using both blacklight and baited pheromone traps.

In 2012, possibly due to the mild winter and greater survivorship, we have already trapped 49 BMSB at the Columbus location, which is ahead of the pace established last year. By late June we expect to have 17 blacklight and baited pheromone trap monitoring sites up and running mostly at sweet corn and bramble fields to detect this pest.

Growers are advised to keep an eye out for this pest, and if found, please collect specimens and notify your local Extension office, or Celeste Welty (welty.1@osu.edu), or Jim Jasinski (jasinski.4@osu.edu). You can also report your find directly on our Ohio BMSB survey (<http://www.surveymonkey.com/s/bmsb>).

For more information on this invasive pest, refer to the OSU fact sheet (http://ohioline.osu.edu/hyg-fact/pdf/FS_3824_08.pdf). A summary of the biology, various hosts, and management options for BMSB as outlined by C. Welty can be found here (http://bugs.osu.edu/welty/fruit_info1/stinkbug%20info.pdf), and chemical options pertaining to this pest can be found at (http://bugs.osu.edu/welty/fruit_info1/stinkbug%20insecticides.pdf).

We have also summarized this information, along with some fruit and vegetable damage pictures, in an ebook available from the VegNet section of iTunes U (epub file format for epub readers on mobile devices eg. iBooks) and iBook format which is available on the front page of VegNet (<http://vegnet.osu.edu>). Tables with chemical options are included with both these publications.



Southern Ohio Vegetable and Fruit Crop Update

June 15 by Brad Bergefurd

Dry weather and constant irrigation was the general theme this week for southern Ohio vegetable growers for what little rain that fell on some areas on Monday June 11th was not enough to settle the dust with most areas receiving less than ¼ inch. Harvest of summer squash, zucchini and cucumbers continues. Harvest of high tunnel tomatoes continues in full force however some growers are reporting some blossom drop, shoulder burn and poor fruit set with the above normal temperatures we are experiencing. A few ears of sweet corn have been harvested with full harvest predicted on or about June 20th. Planting continues for all vegetable and melon crops. Laying of plastic and bed making has resumed even though soil conditions are very dry. Some growers are reporting poor and spotty germination of pumpkin and winter squash seedlings that have been planted the past 2 weeks, this is contributed to the drought like conditions we are under. Planting of no till pumpkins is requiring that planter units be set at the maximum downward pressure on furrow openers to penetrate the hard soil from the extreme dry conditions. Cool season crops including spring lettuce, spring leeks, greens, mustards and spring over wintered onions have bolted and soured with the recent above normal temperatures beginning Memorial Day weekend, and have been tilled under and reseeded with warm season crops. Harvest of peas continues but the above normal temperatures are reducing harvests and pod set. Some new potatoes are being dug. Harvest of black raspberries and summer bearing red raspberries has begun. Summer bearing strawberry harvest is beginning and all June bearing varieties and plasticulture harvests are done for the season. Strawberry growers are renovating plantings and double cropping plasticulture strawberry plantings with pumpkins, winter squash, cucumber, late tomatoes and squash. Constant cultivation and sidedressing of most crops with nitrogen continues for with the extreme dry conditions the past 5 weeks, many pre-emergent herbicides failed due to a lack of moisture to activate them. Both retail and wholesale market demand is high for all vegetable and fruit crops.