

Brown Marmorated Stink Bug (BMSB) Update



BUG BYTES
October 2, 2014 [1]
Author(s):
Joe Boggs [2]

BYGLers located throughout Ohio reported that they are getting calls and e-mails from concerned homeowners about BMSBs (*Halyomorpha halys*) showing-up on the outside walls and window screens of homes and other structures. Their reports lead to Dave Shetlar to provide an instructive update on what has been learned about this Asian import thus far in Ohio and elsewhere.

Dave noted that the major migration of BMSB from forests, farms, and landscapes onto and into homes and other structures typically occurs after the first frost; therefore, the current influx of BMSB is just the tip of the iceberg. Based on field population densities observed by Celeste Welty (OSU Entomology) and others this season, it appears Ohioans may be dealing with the highest BMSB numbers since the bug was first found in the state in 2007. Even worse, Dave reported that recent population studies conducted in Pennsylvania and other eastern states indicate that "peak" BMSB population densities may not occur in Ohio for another 2 - 3 years.

The detection and monitoring of BMSB in the US and Canada has been aided by two discoveries: the recognition that BMSB are attracted to "black light" traps and the discovery of a male-produced aggregation pheromone. Insect pheromones are chemicals that stimulate certain insect behavior; aggregation pheromones cause both males and females to congregate. However, Dave reported that the effectiveness of both monitoring methods varies throughout the season. He noted that while black light traps in central Ohio were highly attractive from July through August with around a dozen bugs captured in each trap per night, beginning around 3 weeks ago, trap catches dropped to around 1 - 2 bugs per night. The relative attractiveness of the aggregation pheromone appears to also have an "on and off switch"; at certain times of the year, the traps are highly attractive while at other times of the year they are much less attractive. Research is continuing on refining the chemical mixtures used in the traps.

Light and pheromone traps are helpful with detecting and monitoring BMSB; however, they are not effective in reducing populations in and around homes. As Dave noted, even during the times of the season when both types of traps are attractive, the relatively few bugs captured in the traps are a drop in the bucket compared to the huge number of bugs that may be crawling in landscaping or lurking in attics! Other ineffective methods that have been touted to combat the bugs include spraying the outside of homes with soap solutions which just makes sticky homes collect dirt until the next rainfall; keeping porch lights off which is thwarted by bugs flying during the day; and using aerosol "bug bombs" which may kill bugs moving around inside homes, but will not kill bugs in walls and attics or prevent new bugs from entering homes. Worse, large numbers of dead stink bugs will eventually stink and the meat source will attract other home pests such as carpet beetles that feed on the stinking bodies. Even perimeter sprays have proven to be problematic providing only limited relief from BMSB.

The best defense against BMSBs buzzing or lumbering around inside a home is to prevent them from entering the home in the first place. The bugs are too large to squeeze through all but the largest of openings into homes. Although they may loiter on window screens, they're too large to fit through the screens. However, large openings created by the loss of old caulking around window frames or door jams provide easy access into homes. The same is true of worn-out exterior door sweeps including doors leading into attached garages. The bugs seem to have an affinity for open garages, so don't leave garage doors open. Bugs finding their way into attics and then into homes can be prevented by attaching window screening to the inside of attic vents. Loose fitting soffits also provide a bug-doorway into attics; they should be repositioned, covered with screening, or replaced.

If the bugs do find their way into a home, they should be dealt with carefully. Crushing them will release a repugnant cloud of stink bug stink! Just disturbing the bugs may cause them to release their pungent aroma from scent glands on their thorax and abdomen. Using a vacuum cleaner to suck-up the bugs is not recommended. Even a "fan-bypass" type (e.g. Shop-Vac) with the refuse bypassing the impeller will develop a distinctive *eau de bug* odor because the bugs become a bit disturbed as they swirl around inside the vacuum tank. Of course, a "direct-fan" type of vacuum cleaner should never be considered; passing the refuse through an impeller would create a horrible bug-blender!

Fragrant misadventures can be avoided by constructing a simple but effective "bug collector" using a plastic pint water bottle. Cut the top 1/4 of the bottle off and invert and insert the cut top to create a funnel into the bottom part of the bottle. The inverted cut-top should extend about 1/4" above the cut lip of the bottom part of the bottle so that a ring of tape will join the two parts together; the only way in is through the funnel. Holding the collector beneath a stink bug and gently nudging it with an inside edge will cause the bug to drop through the funnel and into the bottom chamber; the funnel prevents the captured bugs from escaping. A small amount of soapy water inside the chamber will kill the bugs reducing the chances of bug-stink escaping the collector. The collector will hold a sizable number of bugs before it and the bugs are discarded.



For More Information:

[Penn State Entomology Fact Sheet](#) [4]

[Cornell University IPM Fact Sheet](#) [5]

Source URL: <http://bygl.osu.edu/content/brown-marmorated-stink-bug-bmsb-update-0>