

## Brown Marmorated Stink Bug

The brown marmorated stink bug is native to East Asia. It made its way into the U.S. sometime in the 1990's as a stowaway in packing crates or machinery (or maybe a suitcase). Ironically, the first one was collected in 1998 in Pennsylvania and not on the West Coast. By the early 2000's there were 54 reported sightings of these bugs in U.S. shipping ports, but because stink bugs are federally non-reportable organisms, nothing was done. By 2011 the BMSB had spread to 34 U.S. states, and a total of 40 states by the following year.

California has the ideal conditions for this stink bug to thrive. Under optimal conditions these bugs can hatch, develop and begin laying eggs in 35-45 days. Eggs are yellow to reddish and are covered rows of tiny spines. They are laid side by side beneath leaves in masses that usually contain 20 to 30 eggs. A single female can lay up to 400 eggs in her lifetime. In warmer climates, like those found in California this bug can have as many as six generations a year.

This is a typical looking stink bug, with adults averaging over half an inch (17 mm) in length. Although it is similar in color and shape as some of our native stink bugs, it can be distinguished by the large size, maculate brown coloration and white band on the antenna. In addition, several abdominal segments also have a white band that shows laterally beside the wings.

This stinkbug feeds on a wide variety of host plants, including many different crop plants. In California studies indicate that they feed on a wide variety of crops, such as tomato, peppers and stone fruits, and damage specialty crops such as olives.

Their feeding removes considerable fluid from their host plants, which damages or destroys growing tips, seeds, flowers and fruits. In addition, the saliva they inject into the plant during feeding can damage the tissue in the vicinity of the feeding site.

The other pestiferous issue with this stink bug is its overwintering behavior. The last generation of a growing

season overwinters as adults, often in huge numbers, and there are reports of homes with literally thousands of stink bugs covering the walls in rooms and in closets.

These insects are not easy to control. They will readily take off and leave if disturbed. When a population has been eliminated in one area, a new population may fly in and replace it in fairly short order. As a result, insecticide spraying essentially pushes them from place to place temporarily. Only a few insecticides have been found to work on BMSB's, and they are already developing resistance to pyrethroid insecticides.

It may be that local predators, such as assassin bugs, spiders and even birds will eventually limit BMSB populations, but these populations can be slow to develop. Several parasitoid wasps have been found that attack BMSB eggs. One in particular, the wasp *Trissolcus japonicus* (Scelionidae), is the primary predator of BMSB eggs in China.

The UC IPM Program has an informative webpage on brown marmorated stink bugs: <http://ipm.ucanr.edu/pestalert/pabrownmarmorated.html>.



Brown marmorated stink bug, *Halyomorpha halys*. Photo courtesy of Hectonichus, Wikipedia.