

Brown Marmorated Stink Bug

The brown marmorated stink bug (*Halyomorpha halys*), a native pest of Asia, was first identified in North America in Pennsylvania in 2001. It has since spread throughout the Mid-Atlantic United States and is present in California, Oregon and Washington. It is a very serious pest that feeds on more than 80 different plant species. In 2010, an estimated loss of \$37 million due to brown marmorated stink bug feeding was reported by the apple industry in the Mid-Atlantic States. The stink bug is also a nuisance to homeowners as the adults aggregate on and in buildings while seeking warm overwintering sites. This pest is currently not present in B.C. and growers and homeowners are asked to report any suspect brown marmorated stink bug to the B.C. Ministry of Agriculture offices or contacts below:

- In the Southern Interior please contact Susanna Acheampong, Ministry of Agriculture, (Telephone: (250) 861-7230, Email: Susanna.Acheampong@gov.bc.ca)
- In the Lower Mainland, contact Tracy Hueppelsheuser, Ministry of Agriculture, (Telephone: (604) 556-3031, Email: Tracy.Hueppelsheuser@gov.bc.ca)
- Gabriella Zilahi-Balogh, Canadian Food Inspection Agency, Kelowna, (Telephone: (250) 470-5176, Email: Gabriella.Zilahi-Balogh@inspection.gc.ca)

Identification

Adult: Shield-shaped, 13 – 17 mm long, brown marbled appearance, alternating brown and white markings on the outer edge of the abdomen; can be distinguished from other stink bugs by the presence of distinctive white bands on the last two antennal segments (red arrow below).

Egg: Spherical, white or pale green, 1.6 x 1.3 mm; laid in clusters of 20 – 30 eggs on the underside of leaves.



Adult brown marmorated stink bug. Note white bands on antenna. Photo courtesy, Peter Shearer, Oregon State University



Left, Brown marmorated stink bug eggs; Middle, Nymphs with egg mass, first instar nymph, dark red; second instar nymphs, black; Right, third instar nymph. Photo credits: Eggs and third instar nymph, Peter Shearer, Oregon State University; Middle, Gary Bernon, USDA APHIS, Bugwood.org.

Immature (nymph): There are 5 immature stages. Nymphs range in size from 2.4 – 12 mm in length and do not have fully developed wings. 1st instar nymphs are bright orange to red in colour; 2nd instar nymphs are black, tick-like; later instars are pear-shaped, brown with white markings on abdomen and legs and white bands on last two antennal segments.

Distribution

Asia: Japan, Korea, Taiwan and China

United States: Eastern and mid-western states, California, Oregon and Washington.

Brown marmorated stink bug is currently not present in Canada.

Hosts

Tree fruits, berries, grapes, vegetables, corn and ornamental plants.

Life Cycle

Adults overwinter inside buildings or in protected areas and emerge in early spring. Each female can lay up to 400 eggs throughout the summer on host plants, resulting in overlapping nymphal stages. Eggs hatch in 4–5 days; nymphs mature in about 5 weeks depending on temperature. One to two generations per year are reported in the United States and up to 6 generations per year in Asia.

Damage

Both adults and nymphs feed by inserting their mouthparts into the flesh of fruit or vegetables. Feeding punctures result in small dead areas on fruit, vegetables and leaves. Brown marmorated stink bugs can be a contamination issue for grapes because the presence of a few adults at crush can taint wine.



Brown marmorated stink bug external and internal damage to apple; adults feeding on peach. Photo Credit, Peter Shearer, Oregon State University.



Brown marmorated stink bug damage to peppers, tomatoes and corn. Photo credit, Galen Dively, University of Maryland

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For Further Information:

- Northeast IPM Center, Brown Marmorated Stink Bug Information: <http://www.northeastipm.org/bmsb.cfm>
- University of Maryland Extension: <http://frederick.umd.edu/StinkBugs.cfm>