



Arizona Department of Agriculture Plant Services Division

Brown Marmorated Stink Bug (BMSB) Hemiptera: Pentatomidae: *Halyomorpha halys* (Stål)



Figure 1. *Halyomorpha halys* (Brown Marmorated Stink Bug)

Distribution: First introduced into Pennsylvania in 1996 from eastern Asia (Hoebeke 2003). Now established in CA, CT, DE, IN, KY, MD, NC, NH, NJ, NY, OH, OR, PA, RI, VA, and WV. Detected, but not established in AL, AZ, FL, GA, IA, ID, IL, KS, MA, ME, MI, MN, MO, MS, NE, NM, SC, TN, TX, VT, WA, and WI.



Host Plants: The Brown Marmorated Stink Bug (BMSB) is highly polyphagous, feeding on numerous ornamental plants, garden crops, fruit and shade trees, and commercial crops.

Economic Importance: BMSB feeding on fruit results in pitting and discoloration that will limit market suitability. BMSB is considered a serious pest of several crops in its native Asia and therefore could negatively affect similar crops in Arizona such as: apple (valued at \$4.02 million), citrus (valued at \$61.83 million), and melon (valued at \$187.9 million) (2008 values, USDA 2009). BMSB also is a vector of a phytoplasma disease which will greatly reduce growth and vigor of trees.

Appearance: Adults 14-17 mm. These insects have a shield-shaped body, with brown and

yellow mottled color, covered with dense puncture marks. They have a dark and light alternating pattern along the outer margin of the abdomen and reddish eyes. Other diagnostic characteristics include: (a) white bands on the antenna, (b) smooth anterior margin of the thorax (fig. 2), and (c) presence of dark bands on membranous parts of the forewings (fig. 3).

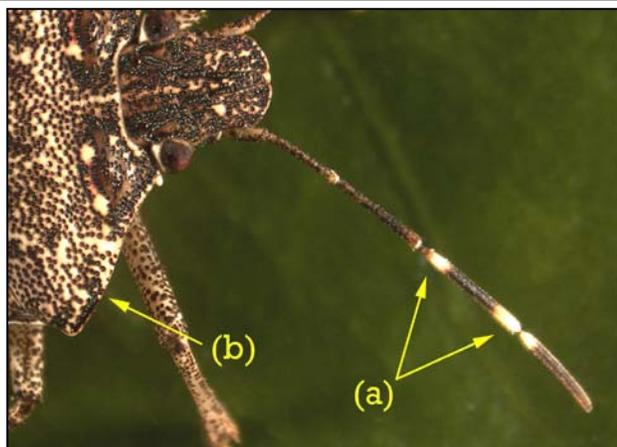


Figure 2. (a) White bands on antenna; (b) smooth anterior margin of thorax

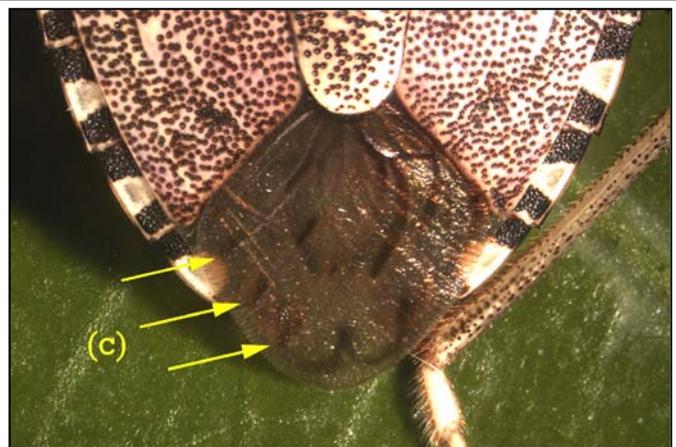


Figure 3. (c) Black bands on membranous part of wing

Arizona Department of Agriculture – Plant Services Division
Entomology Fact Sheet– Brown Marmorated Stink Bug (*Halyomorpha halys*)



Figure 4. First instar nymphs and eggs



Figure 5. Fourth instar nymph



Figure 6. Fifth instar nymph

Eggs 1 mm in diameter. Eggs are white or pale green and barrel shaped. Immatures (nymphs) 2-12mm. BMSB goes through five stages (instars), each lasting about one week. Eyes are deep red, abdomen yellowish-red in early instars (fig. 4), changing to beige with red spots in later instars (figs. 5 & 6). Legs and antennae are dark with light bands. Head and thorax are dark. Spines are located on the legs, in front of the eyes, and along the front margins of the thorax. These spines are lost when BMSB mature.

Biology: For Arizona, yet unknown, but BMSB may have only one generation per year in cooler areas and perhaps up to five or six generations in warmer areas. Adults may become a nuisance pest by aggregating and overwintering in very large numbers in and around heated homes and other structures. Adults mate about two weeks after emerging from overwintering sites. Eggs are deposited in clusters on underside of leaves at regular intervals until fall. The first instars emerge about five days later. As a defensive mechanism, BMSB will emit a pungent odor if threatened.

Similar Arizona Bugs:

Euschistus (fig 7) & *Brochymena* (fig 8):

- No white banding on antennae
- Small spines along the front edge of thorax

Detection: If you think you have found this insect, please contact your local [Arizona Cooperative Extension Office](#) for identification and additional information.

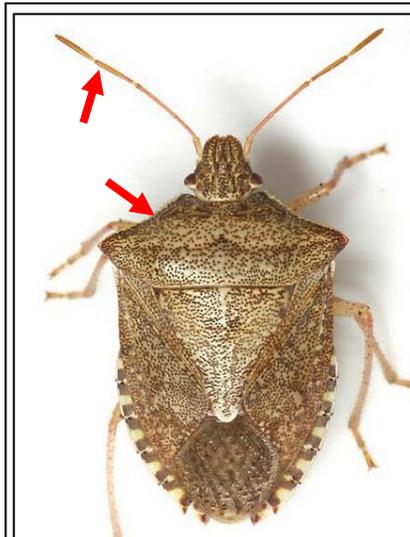


Figure 7. *Euschistus* sp.

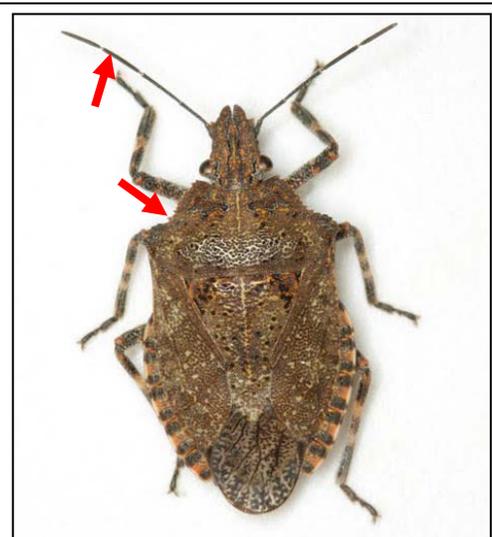


Figure 8. *Brochymena* sp.

References:

Hoebcke E.R. and M.E. Carter. (2003) *Halyomorpha halys* (Stål) (Heteroptera: Pentatomidae): A polyphagous plant pest from Asia newly detected in North America. *Proceedings of the Entomological Society of Washington* 105(1).

United States Department of Agriculture. (2009) 2008 Arizona Agricultural Statistics Bulletin.

Photo Credits: Figures 1-3: A. Woodroffe, Arizona Department of Agriculture. Figure 4-6: David R. Lance, USDA APHIS PPQ, Bugwood.com. Figures 7 & 8: Mike Quinn, Entomologist at Brackenridge Field Laboratory.