Brown Marmorated Stink Bug

*Halyomorpha halys*

Photo: Susan Ellis, Bugwood.org #5369380
Overview

• Native to East Asia
• Detected in continental United States in 2001 in Allentown, Pennsylvania
• Spread to 38 states
• Causes major damage to fruit and ornamental crops

Photo: Gary Bernon, USDA APHIS, Bugwood.org #1113016
**U.S. Distribution**

- No sampling
- Sampled but not found
- Intercepted or detected, but not established
- Established by survey or consensus

Map courtesy of Pest Tracker, National Agricultural Pest Information System (NAPIS), and [http://www.stopbmsb.org/where-is-bmsb/](http://www.stopbmsb.org/where-is-bmsb/), last update 30 Oct. 2013
Host Plants

Photos: (Top Row) - David R. Lance, USDA APHIS PPQ, www.bugwood.org, #UGA1460052 (corn); #UGA1460051 (apple); Gary Bernon, USDA APHIS, www.bugwood.org, #UGA1113010 (cotton). (Bottom Row) – Wikimedia Common, Friedrich Böhringer (walnut); Quadel (beets); Schwäbin (peach).
Identification: Eggs

- **Eggs – newly laid**

- **Eggs – after nymphs emerged**

- **Operculum**

- **Black-framed triangle**

Photos: *(Top Left and Right)* - Ashley Poplin, University of Florida; *(Bottom Left)* - Susan Ellis, Bugwood.org #5443485
Identification: Nymphs

First instars

Late instars

Wing pad

First and second instar nymphs

Photos:
(Top and bottom left) - David R. Lance, USDA APHIS PPQ, www.bugwood.org, #UGA1460052; #UGA1460051. (Bottom right) - Gary Bernon, USDA APHIS, www.bugwood.org, #1113015
Identification: Adults

- Two light colored bands on the antennal segments
- Rounded shoulders
- Alternating light and dark bands along the edges of the abdomen

Photo: Steven Valley, Oregon Department of Agriculture, bugwood.org #5458958
Life Cycle

33-45 days

Eggs

June – September

5 nymphal instars

Nymphs

4-7 days

Nymphs

Adults

Photos: (starting from top center) - Yurika Alexander, www.bugguide.net, #524836; David R. Lance, USDA APHIS PPQ, Bugwood.org #1460049; Gary Bernon, USDA APHIS, Bugwood.org #1113010; David R. Lance, USDA APHIS PPQ, www.bugwood.org, #UGA1460052.
Damage

• Feed using piercing sucking mouth parts
• Typically fruiting structures are damaged
  – Also leaves, stems, petioles, flowers, and seeds
• Nuisance pest

Photos: Wikimedia commons
Monitoring and Management

- Black and yellow pyramid traps
- Bait
  - Methyl (2E, 4E, 6Z)-decatrienoate lure
  - Research on better bait is ongoing
- Black light traps
- Chemical management
- Biological controls

Photo: Daren Mueller, Iowa State University, Bugwood.org #5471628
Prevention and Management in the Home

- Caulk windows
- Install weather strip/sweeps on doors
- Remove by hand picking
- Once inside, insecticides/insecticidal dust treatments/aerosol-type pyrethrum foggers are not advised

Photo: Gary Bernon, USDA APHIS, Bugwood.org #1113007

Brown marmorated stink bugs on a leaf
Look-alike Species

**BMSB**
*Halyomorpha halys*

**Dusky stink bug**
*Euschistus tristigmus*

**Brown stink bug**
*Euschistus servus*

Photos: (Left) - Steven Valley, Oregon Department of Agriculture, bugwood.org #5458958, (Center) - Herb Pilcher, USDA Agricultural Research Service, Bugwood.org #2135007; (Right) - Herb Pilcher, USDA Agricultural Research Service, Bugwood.org #2135001
Look-alike Species

BMSB
*Halyomorpha halys*

Rough stink bug
*Brochymena quadripustulata*

Spined soldier bug
*Podisus maculiventris*

shoulders

Antennae

Edge of the abdomen

Photos: (Left and Center) - Steven Valley, Oregon Department of Agriculture, Bugwood.org #5458958 and #5458954; (Right) - Gerald J. Lenhard, Louisiana State University, Bugwood.org #0014174
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- National Plant Diagnostic Network (NPDN)
- Sentinel Plant Network (SPN)
- Protect U.S.
- University of Florida Institute of Food and Agricultural Sciences (UF-IFAS)
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• Citation:
References

  – http://ento.psu.edu/extension/factsheets/brown-marmorated-stink-bug#section-5
References


References
