

Northeastern IPM Center Partnership Grant Impacts

Reducing Brown Marmorated Stink Bug Crop Damage (2010-Present)

Project Director: Tracy Leskey - USDA-ARS - West Virginia Author: David Lane -Cornell University

THE NEED





- The **brown marmorated stink bug** (**BMSB**)* is a voracious eater that damages fruit, vegetable, and nut crops and is currently found in **44 states**. A working group was funded to address the threats posed by BMSB.
- The value of susceptible crops where it has been established or identified is about **\$23 billion**, with greatest crop damage in the **Mid-Atlantic**.



BMSB on apple. Photo: StopBMSB.org.



Bosc pear with internal damage. Photo: Yan Wang.



Apple with internal necrosis. Photo: Tracy Leskey and Torri Hancock.



Almond damage. Photo: Jhalendra Rijal.



As of 2020, BMSB had been detected in 44 states and 4 Canadian provinces.



Internal damage in peaches. Photo: StopBMSB.org.



Feeding injury on tomato. Photo: Tom Kuhar.

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IMPACTS

- For every \$1 received from the Northeastern IPM Center, \$211 were awarded from additional funding sources. Building on initial USDA-NIFA funding of \$83,333 from 2010-2015 awarded by the Northeastern IPM Center, the working group obtained two USDA Specialty Crop Research Initiative (SCRI) projects with project leaders in 17 states (see map below) that leveraged about \$17.6 million and led to more than 177 scientific publications. Now there are project leaders in 17 states (see map below). In 2021, the working group will submit a third SCRI proposal.
- In the last year, StopBMSB.org had 77,000 visitors representing 156 countries and every state in the U.S.
- IPM approaches to BMSB management include "attract and kill" traps and biocontrol with samurai wasps**.
- The Northeastern IPM Center conducted a survey to BMSB SCRI Co-PIs and Associates, and the data suggest that more, improved research and extension will lead to increased adoption of BMSB IPM.



Attract-and-kill traps on a tree. Photo: Rob Morrison.



Dead stink bugs on an attract-and-kill tree. Photo: Rob Morrison.



The samurai wasp** is a natural enemy of the brown marmorated stink bug. Photo: E. Talamas.



Dead BMSB eggs as a result of a natural enemy. Photo: Walgenbach Lab.



WEBSITES

www.northeastipm.org/working-groups/bmsb-working-group/ www.stopbmsb.org

*Halyomorpha halys (Stål) ** Trissolcus japonicus

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