

BMSB Areawide Stakeholder Meeting

BMSB IPM Working Group Meeting



November 29, 2017
AHS AREC, Winchester, VA



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for environmental, human health, and economic benefits.*

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Brown Marmorated Stink Bug IPM Working Group

Funded in 2010 and 2011, this working group has established itself as the primary platform for facilitating and coordinating research and outreach efforts for [Brown Marmorated Stink Bug](#) (BMSB) across the United States. The group hosts formal meetings on BMSB at which members share the latest research results and field observations and established research and extension priorities. Participants include researchers, extension personnel, growers, pest control operators, and a hotel manager. [Learn about this working group's plans for 2011-12.](#)



BMSB IPM Working Group History

- Leskey and Hamilton submitted mini-grant application in late 2009 (funded).
- First meeting held in June 2010.
- Second meeting held in November 2010.
- Funded continuously since 2010. Held one or two meetings per year.
- This is our 15th meeting.



2014-2016 BMSB IPM WG Objectives

Objective 1. Continue to coordinate other Regional IPM Centers, the NIMSS BMSB Multi-State Project and other affiliated groups to increase networking and reduce duplication of effort.

Objective 2. Identify and address needs of consumer and pest management professionals.

Objective 3. Update priorities based on outputs generated from a number of extramural projects and pest status in new regions.

Topic **Learn about BMSB and the latest IPM techniques**

Description Ben Chambers, Graduate Student, Virginia Tech
Rick Cooper, Technical Director, Cooper Pest Solutions
Tom Kuhar, Professor, Virginia Tech
Mike Raupp, Professor, University of Maryland
Moderators: Tracy Leskey, Appalachian Fruit Research Station & George Hamilton,
Rutgers University.

Description

Brown marmorated stink bug (BSMB) typically enter buildings as the weather starts to cool off in the fall – so join us for a timely conversation with top experts to learn how to avert infestations. They'll be talking about proven control techniques if BMSB are already in your house; interesting facts about BMSB behavior, biology, and ecology; what to look for in a good BMSB pest management professional; and the latest research that you'll be able to use in the future.

The webinar is designed to provide useful, science-based information in a practical, non-nonsense format for homeowners, extension educators, commercial enterprises, and pest management professionals. So, skip the Google search – get the answers you can trust.

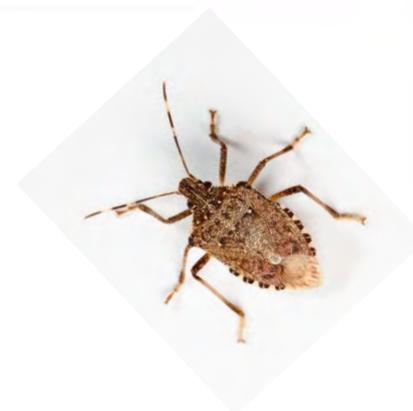
The Panelists

Professor Michael Raupp of the University of Maryland is a Fellow of the Entomological Society of America. Mike develops IPM programs that help homeowners, businesses, and agencies manage insect pests in sustainable ways.

Tom Kuhar is a professor in the Department of Entomology at Virginia Tech where he conducts research on insect pests of vegetables and other crops. Over the past decade he has published over 30 research papers on stink bug pests.

Rick Cooper is the owner of Cooper Pest Solutions, a second generation pest management firm, where he has been the technical director for the past 26 years. Rick is also a visiting scientist at Rutgers University in the Urban entomology lab.

Ben Chambers is a graduate student at Virginia Tech working on Factors Influencing the Behavior of Shelter-seeking and Overwintering Brown Marmorated Stink Bugs (*Halyomorpha halys*) in Human Dwellings.



**Northeastern
IPM
Center**

An Areawide Biointensive Management Plan for Brown Marmorated Stink Bug (BMSB), *Halyomorpha halys* (Stål), to Reduce Impacts Throughout the Agro-Urban Interface



Areawide Objectives

- We propose to:
 - (1) implement biorational management of BMSB in key specialty and row crops;
 - (2) advance strategies for enhanced biological control of BMSB;
 - (3) assess impact of biointensive management on BMSB populations at a landscape scale;
 - (4) promote adoption and implementation of biointensive tactics for management of BMSB.
- Through these combined landscape-level approaches, suppression of BMSB populations can truly be achieved, reducing the ecological and environmental impacts of this devastating invasive species.

Multi-State, Multi-Institution Effort

Tracy Leskey USDA-ARS, AFRS, Kearneysville, WV

Kim Hoelmer, USDA-ARS, BIIRU, Newark, DE

Don Weber, USDA-ARS, IIBBL, Beltsville, MD



Anne Nielsen, Rutgers University, Bridgeton, NJ

George Hamilton, Rutgers University, New Brunswick, NJ



Shelby Fleischer, Penn State University, University Park, PA

Greg Krawczyk, Penn State University, Biglerville, PA



Paula Shrewsbury, University of Maryland, College Park, MD

Cerruti Hooks, University of Maryland, College Park, MD



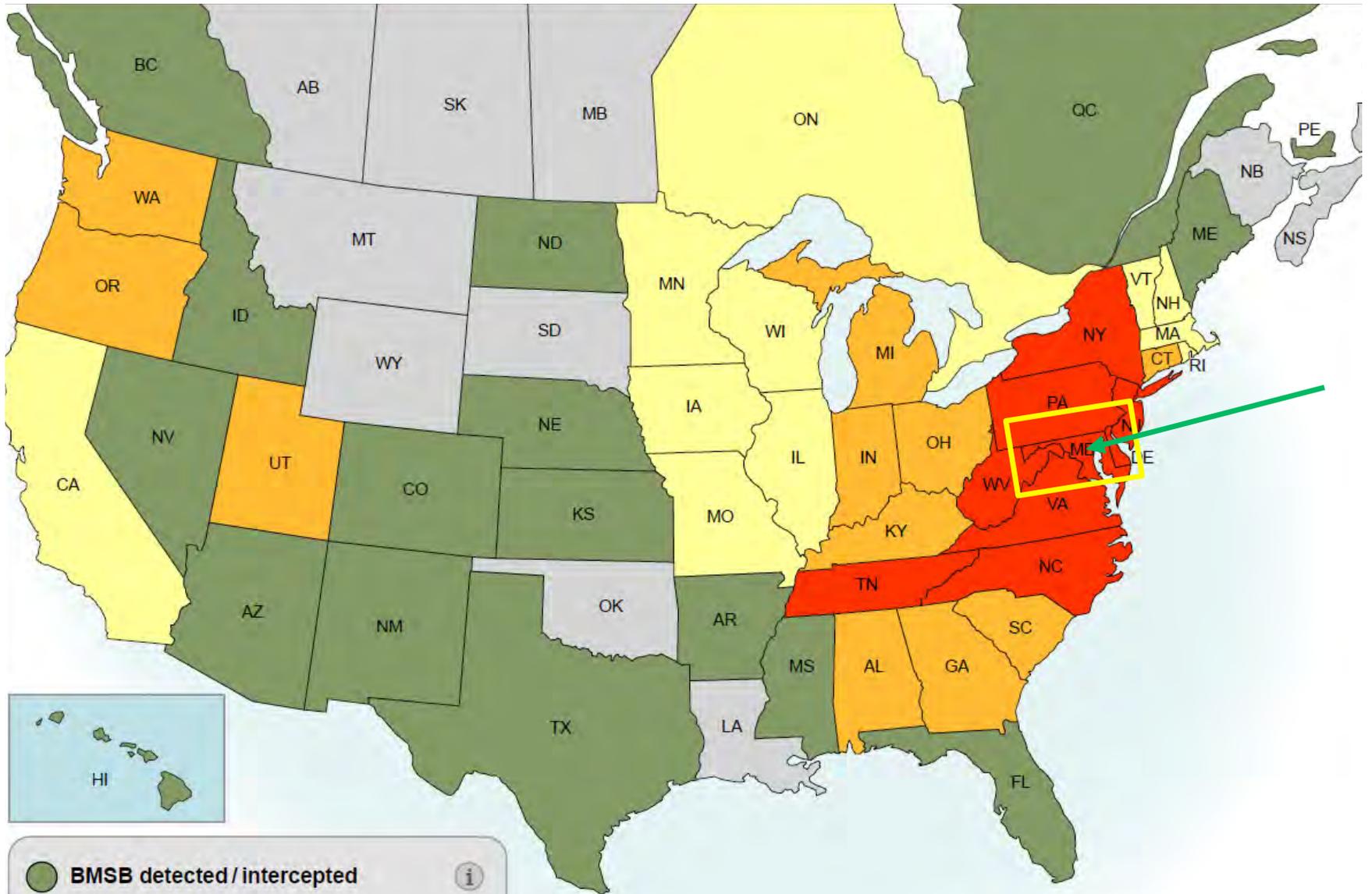
Yong-Lak Park, West Virginia University, Morgantown, WV



Chris Bergh, Virginia Tech, Winchester, VA

Tom Kuhar, Virginia Tech, Blacksburg, VA





- BMSB detected / intercepted** i
- Nuisance problems only** i
- Agricultural and nuisance problems** i
- Severe agricultural and nuisance problems reported** i

Objective 1. Implement biorational management in key specialty and row crops.

- Implement monitoring tactics to make management decisions.
 - Explore sticky cards as replacement for pyramid traps in apple
 - Monitoring system for peach.
 - Promote adoption of existing soybean thresholds.
- Implement border-based management strategies.
 - Border sprays (integrated with threshold), attract and kill
- Develop a cross-crop management strategy
 - Highlight periods of risk and susceptibility
- Impact of management systems on non-targets and secondary pests

Objective 2. Advance Strategies for Biological Control of BMSB

- Conduct *Trissolcus japonicus* surveys
- Determine specific habitat/host preference for native and *T. japonicus* and interactions between them
- Measure impact of key biological control agents in Areawide and Companion sites
- Develop strategies for enhanced biological control at landscape scales.
 - Use of pheromones and kairomones, enhanced crop residue as overwintering shelters/harborage

Objective 3. Assess impact of biointensive management at the landscape scale

- 4 sites with 1 sq km Areawide and Companion sites.
- Targeting apple, peach and soybean as key crops.
- Monitoring across landscape elements with standardized traps.
- Assess crop injury and changes in BMSB populations in Areawide and Companion sites.
- Model changes in BMSB spatial distribution patterns, phenology and density in Areawide and Companion sites.
- Refine individual-based model with additional inputs
- Measure impact of management systems on non-targets and secondary pests

Objective 4. Promote adoption and implementation of biointensive BMSB management tactics

- Surveys will be used to develop outreach materials and to ultimately assess adoption
- Develop and deliver BMSB programs and educational materials for specialty and row crop growers.
- Develop and distribute BMSB programs and educational materials for homeowners and businesses
- Measure economic impact and develop a management strategy evaluation that evaluates the effectiveness of Areawide management

Meeting Schedule

- 8:45 AM - 10:30 AM **BMSB Areawide Research/Outreach Updates**
- 10:30 AM - 10:45 AM **Break**
- 10:45 AM - 11:15 AM *Discussion Period One*
- 11:15 AM – 12:00 PM **BMSB Areawide/Research/Regulatory Updates**
- 12:00 PM -1:00 PM **Working Lunch, Multi-State Meeting**
- 1:00 PM – 2:15 PM **BMSB Areawide / Research Updates**
- 2:15 PM – 2:30 PM **Break**
- 2:30 PM – 3:00 PM *Discussion Period Two*
- 3:00 PM – 4:15 PM **BMSB Areawide / Research Updates**
- 4:15 PM – 4:45 PM *Discussion Period Three*
- 4:45 PM – 5:00 PM **Closing Remarks / Meeting Wrap-Up**

BMSB In Italy

- <https://www.youtube.com/watch?v=iokVt7vTOuU>

BMSB In Chile

