

# BMSB IPM Working Group Meeting



December 2, 2015  
AHS AREC, Winchester, VA



# Schedule

- 9:00 AM -10:00 AM – Pest Status Updates
  - 10:00 AM -10:15 AM– *Break and Discussion*
- 10:15 AM -12:05 PM– Continued Pest Status Updates, Computer Vision Tools
- 12:05 PM -1:05 PM – Lunch, Multi-State Meeting and Regional/Canadian Pest Status Updates
- 1:05 PM – 320 PM – Research Presentations, Related Projects
  - 3:20 PM – 3:35 PM – *Break and Discussion*
- 3:25 PM – 5:00 PM – Next Steps for National Projects
- 5:00 PM – 5:30 PM – Meeting Wrap-Up and Adjournment



# 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 two meetings per year.
- This is our 12<sup>th</sup> meeting.



# Building A Collaborative Team and Identifying Priorities



*We promote and fund integrated pest management for environmental, human health, and economic benefits.*



**Got Pests? ▶**

**Need Funding? ▶**

- ▶ HOME
- ▶ ABOUT US
- ▶ IPM IN ACTION
- ▶ GRANT PROGRAMS
- ▶ WORKING GROUPS
  - Marmorated Stink Bug
  - Pollinator

HOME » WORKING GROUPS » Marmorated Stink Bug

## Brown Marmorated Stink Bug IPM Working Group

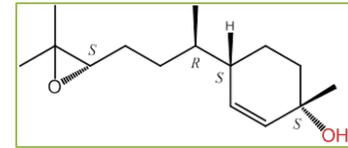
Funded in 2010 and 2011, this working group has established itself as the primary platform for facilitating and coordinating research and outreach efforts for [Brown Marmorated Stink Bug](#) (BMSB) across the United States. The group hosts formal meetings on BMSB at which members share the latest research 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.](#)



# Research Priorities



Studies of BMSB  
Biology, Behavior  
and Ecology



Identification of  
Aggregation  
Pheromone



Identification of Effective  
Biological Control Agents



Identification of  
Effective Insecticides

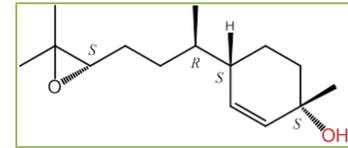


Standardized  
Sampling/Monitoring  
Techniques

# Research Priorities



Studies of BMSB  
Biology, Behavior  
and Ecology



Identification of  
Aggregation  
Pheromone



Identification of Effective  
Biological Control Agents



Identification of  
Effective Insecticides



Standardized  
Sampling/Monitoring  
Techniques

# 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.**

*For this objective, we will utilize the Social Network Analysis Tool to measure strength of collaborations, connections, and contacts within the BMSB IPM Working Group.*

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

*For this objective, we will use 1) use pre/post survey tools to measure knowledge gained by our BMSB IPM Working Group membership regarding needs of consumer and pest management professionals and 2) pre and post knowledge surveys to measure knowledge gained and IPM practices implemented by pest management professionals through our targeted webinar series.*

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

*For this objective, we will list all stakeholders consulted, generate priorities and provide a description of how priorities were reached*

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



# Presentations at June 2015 Meetings

			
<b>Meeting Agenda</b> <b>Brown Marmorated Stink Bug</b> <b>Working Group Meeting</b>		<b>June 9, 2015</b> <b>**Physics Building, Room 1201</b> <b>College Park, MD</b>	
<b>June 9, 2015</b>		<b>Morning Session 8:00 – 12:25</b>	
<b>Start Time</b>	<b>Speaker</b>	<b>Affiliation</b>	<b>Title</b>
8:00 - 8:45	George Hamilton & Tracy Leskey	Rutgers USDA-ARS-AFRS	Registration/Welcome/Opening Remarks/Survey
8:45 - 9:05	Doug Inkley	National Wildlife Federation	Haunted House - Getting Rid of BMSBs
9:05 - 9:30	Tom Kuhar & John Aigner	Virginia Tech	"From bubble baths to baking bugs: A potpourri of our urban pest control research endeavors on BMSB in Virginia"
9:30 - 9:50	Phil Hansen	Wallenius Wilhelmsen Logistics	BMSB Effects on Shipping Industry
9:50 - 10:10	Bennett Jordan	National Pest Management Association	PMPs and BMSB: Where we stand and where we are going
<b>10:10 - 10:25</b>	<b>Break</b>	<b>Jason's Deli</b>	<b>Coffee, Orange Juice, Bakery Shop Tray with Fresh Fruit</b>
10:25 - 10:45	David Burgess	Cooper Pest Solutions	Structural Pest Control Operations
10:45 - 11:05	Torri Hancock	USDA-ARS-AFRS	Great Stink Bug Count
11:05 - 11:25	David Teulon	Plant & Food Research/B3	BMSB Research in New Zealand
11:25 - 11:45	Paula Shrewsbury	University of Maryland	Designing Stink Bug-Free Landscapes
11:45 - 12:05	Brian Garms	Australian Department of Agriculture	BMSB biology and invasion risk; Australia's perspective.
12:05 - 12:25	George Hamilton	Rutgers University	Management of BMSB on Commercial Properties
<b>Break for Working Lunch/See Reverse for Afternoon Session</b>			

# BMSB Nuisance Pest Survey

## Nuisance Problems Caused by Brown Marmorated Stink Bug



### Survey for Homeowners and Businesses

The invasive brown marmorated stink bug (BMSB) has caused headaches for homeowners and businesses due to their entry into homes and buildings during the autumn, often in very large numbers, and their entry living spaces throughout the winter and spring.

The BMSB IPM Working Group would like to know more about how you deal with BMSB nuisance problems at your home and/or business. Your responses to our survey will help guide researchers on key issues they should pursue to better combat this problem. Thanks so much for your assistance!

**\* 1. In what city do you live?**

**2. Have you had BMSB problems at your home or business?**

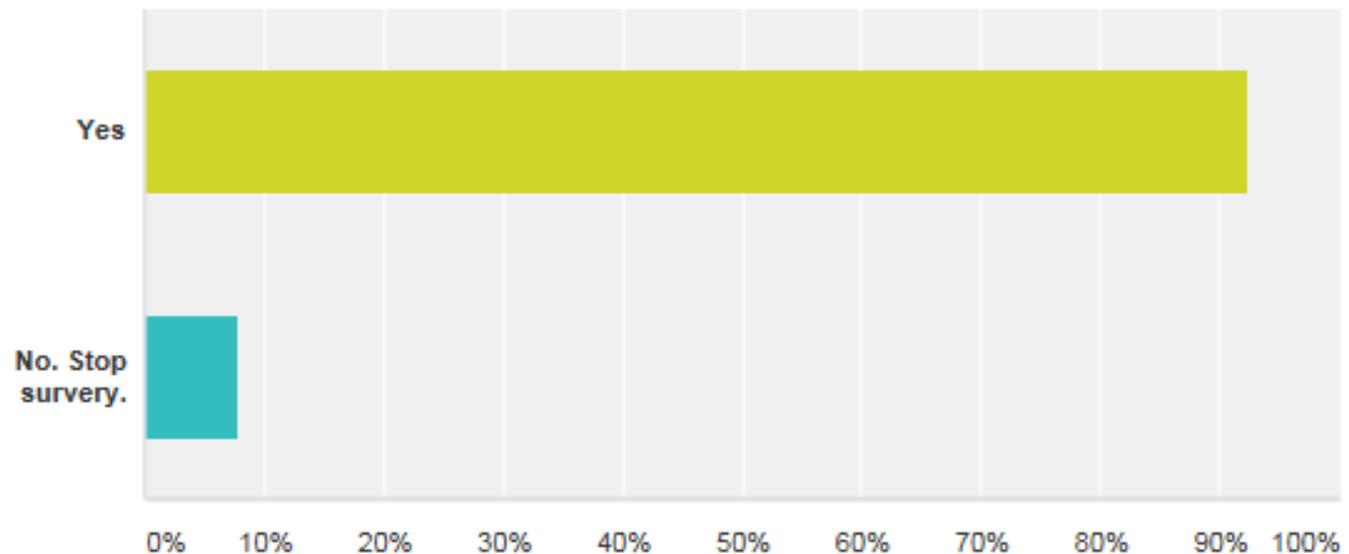
- Yes
- No. Stop survey.

Open for 6  
weeks

>550  
responses from  
all over the  
country

## Have you had BMSB problems at your home or business?

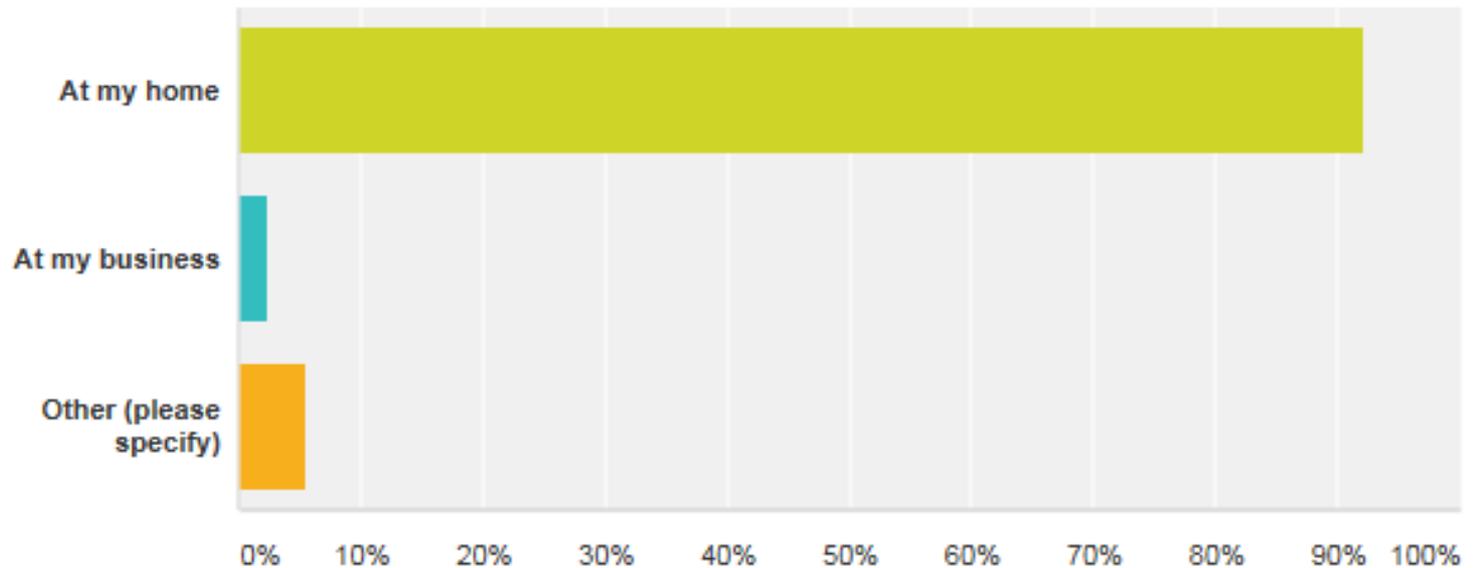
Answered: 542 Skipped: 7



Answer Choices	Responses
▾ Yes	92.25% 500
▾ No. Stop survey.	7.75% 42
Total	542

## Where are your BMSB problems located?

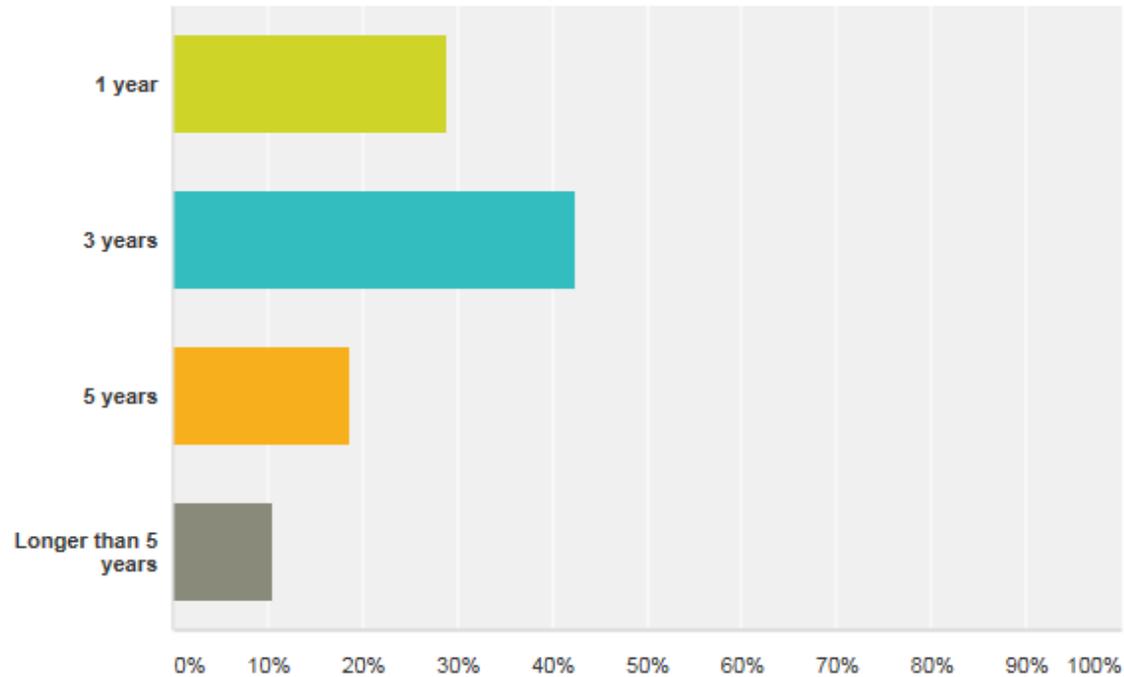
Answered: 508 Skipped: 41



Answer Choices	Responses	
▼ At my home	92.13%	468
▼ At my business	2.36%	12
▼ Other (please specify)	5.51%	28
Total		508

## How many years has BMSB been a problem at your home or business?

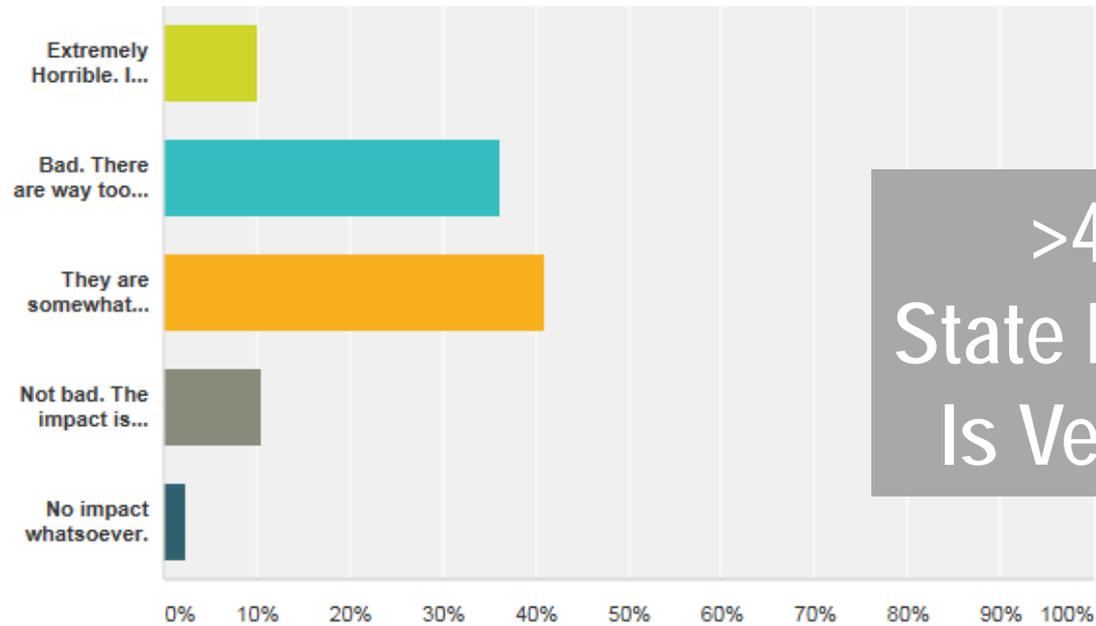
Answered: 503 Skipped: 46



Answer Choices ▾	Responses ▾
▼ 1 year	28.83% 145
▼ 3 years	42.35% 213
▼ 5 years	18.49% 93
▼ Longer than 5 years	10.34% 52
Total	503

## How serious is your BMSB problem?

Answered: 504 Skipped: 45

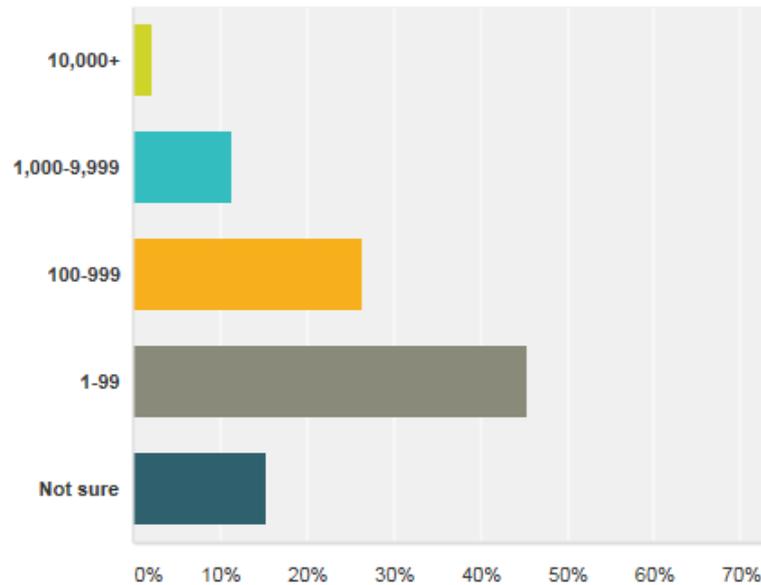


>46%  
State Problem  
Is Very Bad

Answer Choices	Responses
Extremely Horrible. It affects the quality of my life and/or my business.	10.12% 51
Bad. There are way too many in my home or business.	36.11% 182
They are somewhat annoying, but we can cope.	40.87% 206
Not bad. The impact is minimal.	10.52% 53
No impact whatsoever.	2.38% 12
Total	504

## Please estimate the number of BMSB that are inside your home or business

Answered: 501 Skipped: 48



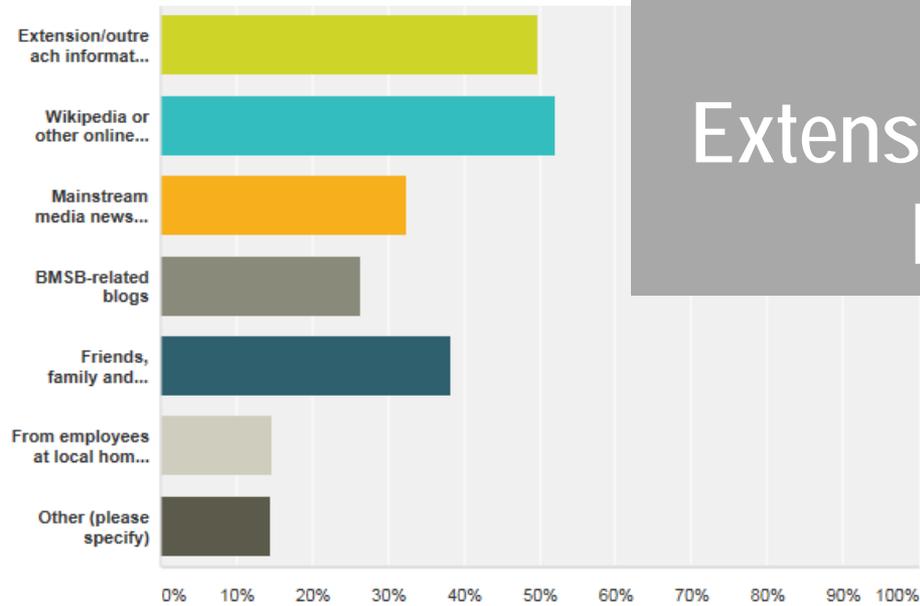
Only 13%  
Have 1000+  
Or More

Tolerance for BMSB  
Is Low

Answer Choices	Responses	
▼ 10,000+	2.00%	
▼ 1,000-9,999	11.18%	56
▼ 100-999	26.35%	132
▼ 1-99	45.31%	227
▼ Not sure	15.17%	76
Total		501

## What sources of information have you used to educate yourself about BMSB nuisance problems?

Answered: 503 Skipped: 46

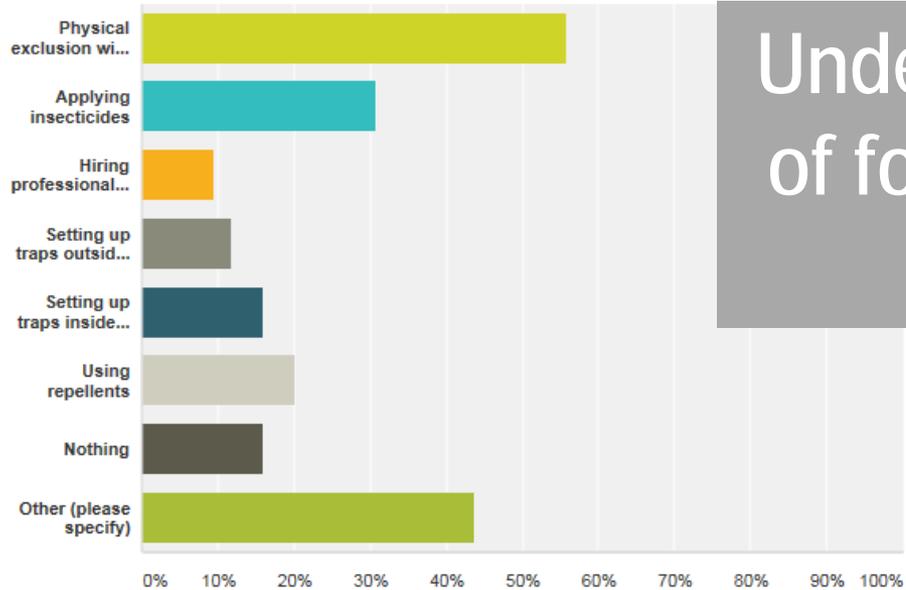


Good  
Extension/Outreach  
Efforts

Answer Choices	Responses
Extension/outreach information including fact sheets and web sites available from Universities	49.70% 250
Wikipedia or other online sources	51.89% 261
Mainstream media news (newspaper, radio and TV)	32.41% 163
BMSB-related blogs	26.24% 132
Friends, family and neighbors	38.17% 192
From employees at local home and garden stores	14.71% 74
Other (please specify)	14.31% 72
Total Respondents: 503	

## Which of the following tactics have you used to mitigate your BMSB problems?

Answered: 501 Skipped: 48



Under "Other" – a lot of folks using soapy water

Answer Choices	Responses
Physical exclusion with screen, caulk, painters tape, etc.	55.69% 279
Applying insecticides	30.74% 154
Hiring professional pest management services	9.38% 47
Setting up traps outside my home	11.78% 59
Setting up traps inside my home	15.97% 80
Using repellents	19.96% 100
Nothing	15.97% 80
Other (please specify)	<b>Responses</b> 43.71% 219
Total Respondents: 501	

Q9

Customize

## How effective was each tactic you used against BMSB?

Answered: 471 Skipped: 78

	Very Effective	(no label)	Moderately Effective	(no label)	It did not work at all	N/A	Total	Weighted Average
Physical exclusion with screening, caulk, painters tape, etc.	5.77% 24	9.62% 40	29.81% 124	17.31% 72	10.34% 43	27.16% 113	416	3.23
Applying Insecticides	2.97% 11	4.05% 15	14.32% 53	13.78% 51	11.89% 44	52.97% 196	370	3.59
Hiring professional pest management services	0.93% 3	4.04% 13	4.35% 14	3.11% 10	6.21% 20	81.37% 262	322	3.52
Setting up traps outside my home	0.62% 2	1.55% 5	3.41% 11	4.02% 13	12.69% 41	77.71% 251	323	4.19
Setting up traps inside my home	0.90% 3	2.11% 7	4.82% 16	8.73% 29	12.65% 42	70.78% 235	332	4.03
Using repellents	0.60% 2	1.51% 5	9.64% 32	9.64% 32	14.46% 46	64.16% 213	332	4.00
Nothing	1.48% 4	1.48% 4	3.32% 9	3.69% 10	18.62% 51	71.22% 193	271	4.28

Comments (131)

Nothing  
Particularly  
Effective

Q10

Customize

Export

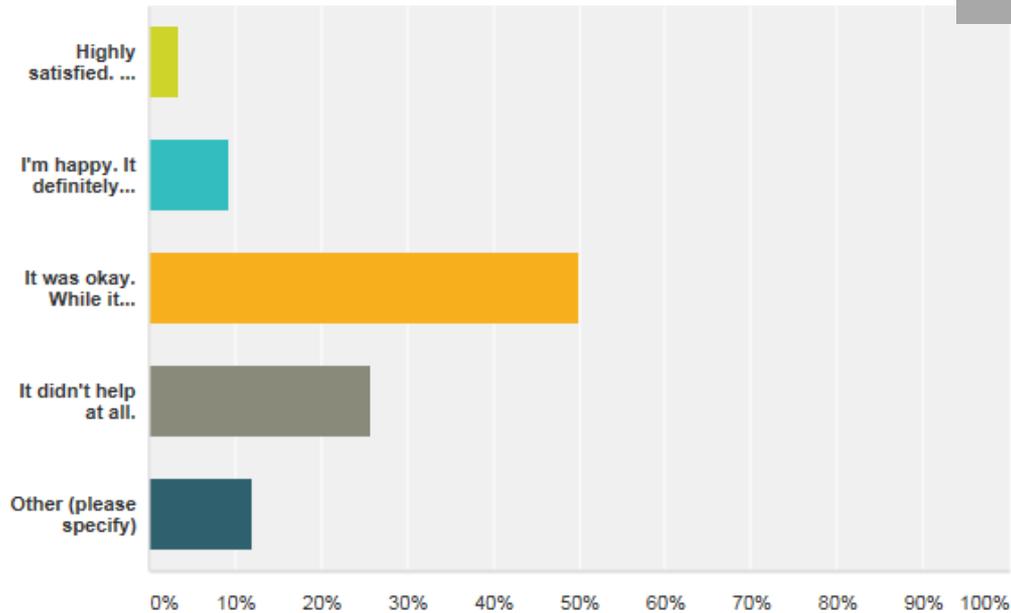
Nothing  
Particularly  
Effective

Q10

Customize

## How satisfied have you been with the results?

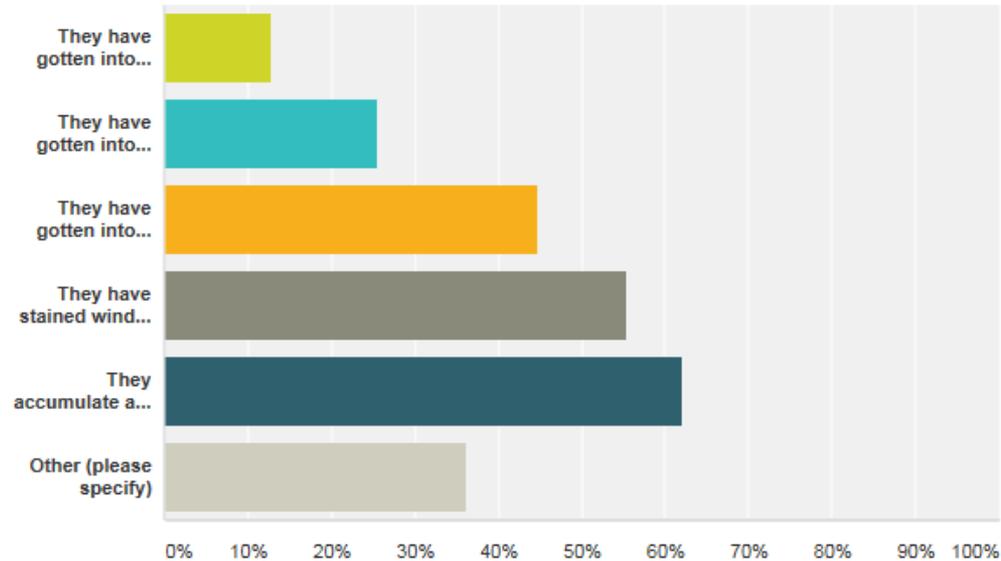
Answered: 486 Skipped: 63



Answer Choices	Responses
Highly satisfied. I had almost no bugs. I will continue to use these approaches.	3.29% 16
I'm happy. It definitely reduced the numbers.	9.26% 45
It was okay. While it reduced the numbers, it didn't solve the problem.	49.79% 242
It didn't help at all.	25.72% 125
Other (please specify) <a href="#">Responses</a>	11.93% 58
Total	486

**Besides being in your home, please indicate if BMSB has caused additional problems for you.**

Answered: 407 Skipped: 142



Answer Choices	Responses
▼ They have gotten into electronic equipment like computers and TV screens	12.78% 52
▼ They have gotten into mechanical equipment like lawn mowers and HVAC units	25.55% 104
▼ They have gotten into cars	44.72% 182
▼ They have stained window sills and curtains	55.28% 225
▼ They accumulate and die in the attic and other storage areas	61.92% 252
▼ Other (please specify) <a href="#">Responses</a>	36.12% 147
Total Respondents: 407	

# A lot of Opportunity To Educate General Public

Please rate the following information types as to their usefulness and importance to you when considering your **BMSB** problems.

Answered: 474 Skipped: 75

	Highly Useful	(no label)	Moderately Useful	(no label)	Not Useful	N/A	Total	Weighted Average
Biology of BMSB - who are they, where did they come from and when will they go away?	30.22% 136	18.67% 84	30.00% 135	6.67% 30	9.11% 41	5.33% 24	450	2.43
BMSB Population Forecasting - how many should we expect each year?	25.83% 117	22.08% 100	24.94% 113	9.49% 43	7.73% 35	9.93% 45	453	2.46
Insecticide Information - which ones work and which ones don't?	41.43% 186	17.15% 77	14.03% 63	5.35% 24	7.57% 34	14.48% 65	449	2.07
Seasonal Activity Information - when can we expect them to show up?	33.55% 152	29.14% 132	20.97% 95	6.84% 31	3.31% 15	6.18% 28	453	2.12
Traps - do they work?	37.30% 166	19.55% 87	17.75% 79	6.07% 27	7.19% 32	12.13% 54	445	2.16
Professional Pest Management Services - are they worth it?	23.57% 103	18.08% 79	15.56% 68	5.72% 25	12.13% 53	24.94% 109	437	2.53
Repellents - are they useful?	32.51% 145	21.97% 98	15.92% 71	6.50% 29	7.40% 33	15.70% 70	446	2.22
Exclusion Tactics - how can I best seal up my home?	38.69% 171	21.72% 96	19.46% 86	7.24% 32	4.52% 20	8.37% 37	442	2.10
Indoor Tactics - what should I do once they are inside?	46.00% 207	20.22% 91	17.78% 80	3.33% 15	3.56% 16	9.11% 41	450	1.88

Would it be possible for the BMSB IPM WG  
or to partner with the StopPests program?

Agro-Urban Interface? New Projects?

Allergens?