Brown Marmorated Stink Bug impact survey: Longitudinal data

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Overall economic loss:
Yes, the BMSB is costing farmers money

All states, all commodity meetings. Excluding “did not know”

<table>
<thead>
<tr>
<th>Year</th>
<th>Reported loss</th>
<th>No reported loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>2014</td>
<td>72%</td>
<td>28%</td>
</tr>
</tbody>
</table>

All states combined reported loss 2012

All states combined reported loss 2014
State by state data

2011 one meeting, 21 respondents

2012 Eighteen meetings, 833 respondents

2013 Two meetings, 80 respondents

2014 Twenty meeting, 757 respondents

4 years, 41 commodity meetings, 1691 Respondents

Respondent = Grower, Farmer, Manager, Worker, Consultant, Educator

Range:

58% Reporting damage in Virginia in 2012 to 88% Reporting damage in Maryland in 2014

States responses

<table>
<thead>
<tr>
<th>State</th>
<th>12</th>
<th>13</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>83</td>
<td>81</td>
<td></td>
</tr>
<tr>
<td>NJ</td>
<td>62</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>MD</td>
<td>82</td>
<td>88</td>
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<tr>
<td>VA</td>
<td>58</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>WV</td>
<td>82</td>
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</tbody>
</table>
Loss breakdown
Insect appears throughout the region, but not all growers report damage....

2012

All states loss of profit 2012

- No loss in profit for that crop 29%
- Less than 33% loss in profit 20%
- 33-66% loss in profit 11%
- More than 67% loss in profit for that crop 2%
- Don’t know or can’t say 36%
- Some loss, multiple answers 2%

2014

All states loss of profit 2014

- No loss in profit for that crop 16%
- Less than 33% loss in profit 34%
- 33-66% loss in profit 5%
- More than 67% loss in profit for that crop 1%
- Don’t know or can’t say 43%
- Some loss, multiple answers 1%
Economic loss by state

Some differences but patterns continue by state

Virginia and Pennsylvania have a high percentage with “don’t know” or “no loss”
Loss Categories
Dropped: “loss of certification” and “lost money on U-pick”
Data issues
Loss categories by state
Question 1. Reported primary occupations followed by number of respondents. Total of 984 and 779 respondents in 2012 and 2014, respectively.
Question 2. Reported location of respondents. Total of 824 and 671 respondents in 2012 and 2014, respectively. New Jersey was not represented in the 2012 survey.
Question 3. Respondents’ ability to correctly identify an adult BMSB. Total of 822 and 671 respondents in 2012 and 2014, respectively.
Question 3. Respondents’ ability to correctly identify a BMSB nymph. Total of 822 and 671 respondents in 2012 and 2014, respectively.
Question 3. Respondents’ ability to correctly identify a green stink bug as not a BMSB. Total of 823 and 671 respondents in 2012 and 2014, respectively.
Question 3. Respondents’ ability to correctly identify a leaf-footed bug as not a BMSB. Total of 823 and 671 respondents in 2012 and 2014, respectively.
Question 4. Characteristics respondents use to identify a BMSB. Total of 978 and 859 respondents in 2012 and 2014, respectively.
Question 5, Photo 1. Respondents’ experience with BMSB damage in field or sweet corn; number of respondents indicated after each answer. Total number of respondents was 759 and 624 in 2012 and 2014, respectively.
Question 5, Photo 2. Respondents’ experience with BMSB damage in apple or other tree fruit; number of respondents indicated after each answer. Total number of respondents was 774 and 629 in 2012 and 2014, respectively.
Question 5, Photo 3. Respondents’ experience with BMSB damage in pepper or tomato; number of respondents indicated after each answer. Total number of respondents was 755 and 625 in 2012 and 2014, respectively.
Question 5, Photo 4. Respondents’ experience with BMSB damage in soy or green bean; number of respondents indicated after each answer. Total number of respondents was 734 and 622 in 2012 and 2014, respectively.
Question 6. Reported observations of BMSB pressure in various crops by year.