

Summary of Survey to BMSB SCRI Co-PIs and Associates

In January and February of 2020, we conducted the Brown Marmorated Stink Bug (BMSB) Management Survey for Co-PIs and Associates on the SCRI Grant. The results of this survey help us better understand the gap between BMSB research and Extension.

It was a national, targeted survey of research, Extension and private IPM practitioners that were familiar with the current state of BMSB management strategies. We asked the co-PIs to complete this survey, and also forward it to Extension personnel and private consultants in a position to know the practices of growers in their state. Art Agnello presented a summary report at the Stakeholder Advisory Panel meeting on February 20, 2020.

There were 105 respondents. 40% were Extension, 35% were co-PIs, 10% were consultants, 4% were stakeholder advisory panel members, and 12% were 'other.'

39% of the respondents said BMSB has been a problem on tree fruits, and 24% said it was a problem on vegetables. Field crops (15%), grapes (8%), tree nuts (6%), and 'other' (8%). Apples and pears were the most problematic tree fruits. Pecans, almonds, and hazelnuts have been the most problematic tree nuts. Among vegetables, fruiting vegetables were the most problematic. Soybeans and corn were the most problematic field crops.

Pyrethroids were the most commonly used insecticides used to manage BMSB, followed by neonicotinoids in all commodities. When asked how decisions were made regarding when to apply insecticides, 29% reported that scouting was used by the growers, 24% said recommendations from Extension, and 20% said recommendations from consultants.

The results of the survey were analyzed to contrast the responses between co-PIs and non-co-PIs on the SCRI grant. They were asked to report their estimates of what percentage of growers had received education and training and adopted: border spraying of insecticides, attract-and-kill, naturally occurring biological control, conservation biocontrol, augmentative release of biological control, and threshold traps. Biocontrol and border spraying were the most adopted practices, and nearly half of the growers had received education and training on these practices. In contrast, nearly half of the growers had received education and training on threshold traps, but only about 20% had adopted the practice, so there is a much bigger gap between education and adoption with threshold traps. In general, for all practices, the co-PIs tended to estimate the levels of adoption higher than the non-co-PIs.

The biggest perceived barriers to adoption of border spraying were lack of awareness (29% of respondents), difficulty of implementation (26%), and the perception that the research is not complete (16%). For attract-and-kill, the top barriers were that the research is not complete (31%), lack of awareness (30%), and difficulty of implementation (19%). For threshold traps, the top barriers were lack of awareness (32%), the research is not complete (30%), and difficulty of implementation (20%). For biocontrol, the top barriers were that the research is not complete (29%), lack of awareness (26%), and difficulty of implementation (20%).

Given these barriers, and the fact that "high cost of practice" was not a top barrier, these data suggest that more, improved research and extension will lead to increased adoption of BMSB IPM.