

## PROJECT SUMMARY

**Instructions:**

The summary is limited to 250 words. The names and affiliated organizations of all Project Directors/Principal Investigators (PD/PI) should be listed in addition to the title of the project. The summary should be a self-contained, specific description of the activity to be undertaken and should focus on: overall project goal(s) and supporting objectives; plans to accomplish project goal(s); and relevance of the project to the goals of the program. The importance of a concise, informative Project Summary cannot be overemphasized.

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**Title:** Management of Brown Marmorated Stink Bug in US Specialty Crops

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**PD:** Jim Walgenbach

**Institution:** North Carolina State University

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**CO-PD:** Elizabeth Beers

**Institution:** Washington State University

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**CO-PD:** Larry Gut

**Institution:** Michigan State University

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**CO-PD:** Thomas Kuhar

**Institution:** Virginia Tech

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**CO-PD:** Mike Toews

**Institution:** University of Georgia

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The brown marmorated stink bug (BMSB) is an invasive insect that first appeared as a severe economic pest of specialty crops in the Mid-Atlantic in 2010. It has since spread to 43 states and is now a threat to specialty crops across much of the US. A SCRI CAP (2011-2016) developed chemical control strategies and fundamental biological and ecological information on BMSB. While the chemical control component provided short-term relief for producers, reliance on broad spectrum insecticides have negatively affected non-target organisms and led to secondary pest outbreaks. This project builds upon previous findings, but re-focuses efforts on stakeholder-driven objectives for long-term, sustainable management. The project addresses SCRI goals associated with assessing threats from pests, and efforts to improve production efficiency. We will improve our knowledge of BMSB risk to crops through enhanced understanding of agroecology and landscape ecology, implement widespread biological control of BMSB with an exotic Asian parasitoid and native natural enemies, and develop management tools and strategies compatible with biological control and informed by risk from landscape factors. We will continue to determine the economic consequences of BMSB damage and how it is reduced by specific management strategies, and deliver science-based information with a robust and diversified outreach program based on the infrastructure developed during the first SCRI project. The new project is national in scope to address the imminent threat of BMSB to specialty crops in regions invaded since 2010 (Southeast, Great Lakes, Pacific Northwest and West), which have unique stakeholders, cropping systems and landscapes.