Biology, Ecology, and Management of Brown Marmorated Stink Bug in Orchard Crops, Small Fruit, Grapes, Vegetables, and Ornamentals

Funding

USDA United States Department of Agriculture

National Institute of Food and Agriculture

Specialty Crop Research Initiative

Grant #2011-01413-30937

Collaborating Institutions

University of Delaware

ARS

Penn State

The State University of New Jersey Rutgers

Northeastern IPM Center

Washington State University

Cornell University

University of Maryland

Virginia Tech

OSU Oregon State University

NC State University

StopBMSB.org

Grant Objectives

1. Establish biology and phenology of BMSB in specialty crops.

2. Develop monitoring and management tools for BMSB.

3. Establish effective management programs for BMSB in specialty crops.

4. Integrate stakeholder input and research findings to form and deliver practical outcomes.

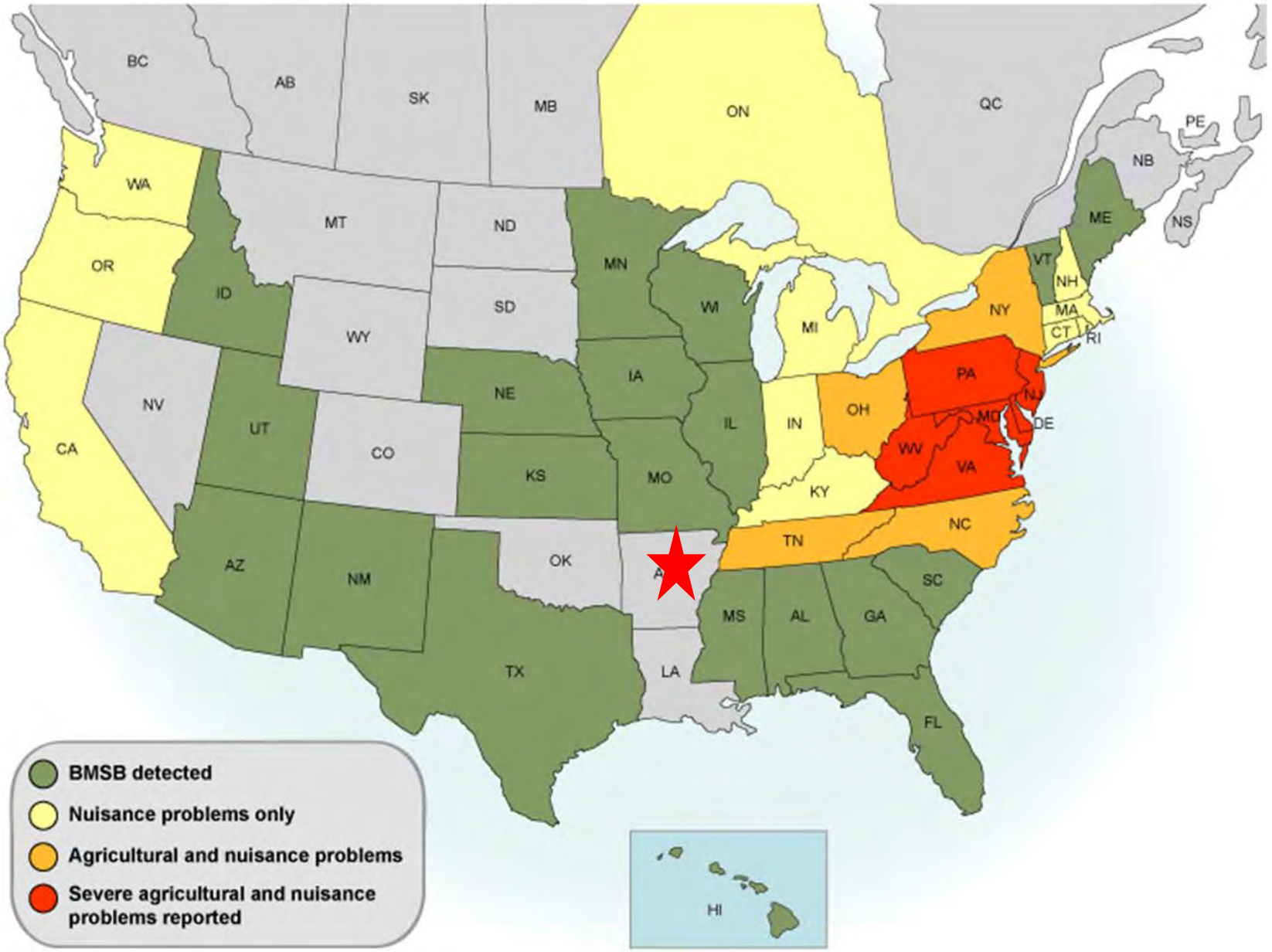
Purpose of Stakeholder Advisory Panel

- The Stakeholder Advisory Panel will meet annually to review project accomplishments, provide feedback on research plans, and guide the execution of objectives.

- The Panel will provide an overall assessment of the project and will develop recommendations for future research and outreach efforts.

- Based on input from the Stakeholder Advisory Panel, we will modify objectives or procedures to ensure that the needs of specialty crop stakeholders are best served and the risk posed to U.S. agriculture is mitigated.

Current Distribution of BMSB in the United States



Updated by BMSB Working Group, November 2013

Regulatory Issues

- 2013 Section 18s for Tree Fruit
  - Renewal of Section 18 for Dinotefuran
  - Approval of Section 18 for Bifenthrin
  - Renewal applications will be submitted for 2014

- 2012 was the last year for endosulfan use in peaches. Apples through 2015.

- Continued progress in host specificity screening for classical biological control program. Kim Hoelmer will provide an update today.

BMSB SCRI Reporting

- Teresa Mersing, Project Support Assistant, left in September.
- In process of hiring replacement.
- Annual Report - same reporting format as 2012.

Institutional Annual Reports

- Technical Summary of Progress
- Outlined Experimentation for Upcoming Period
- Barriers to Success
- Key Personnel Trained (post-docs, graduate students, undergrads)
- Research and Extension Products (talks, posters, workshops, publications)
- New/Leveraged Funding
- Media Contacts

Institutional Progress

Institutional Progress Toward Accomplishment of Objectives During Reporting Period

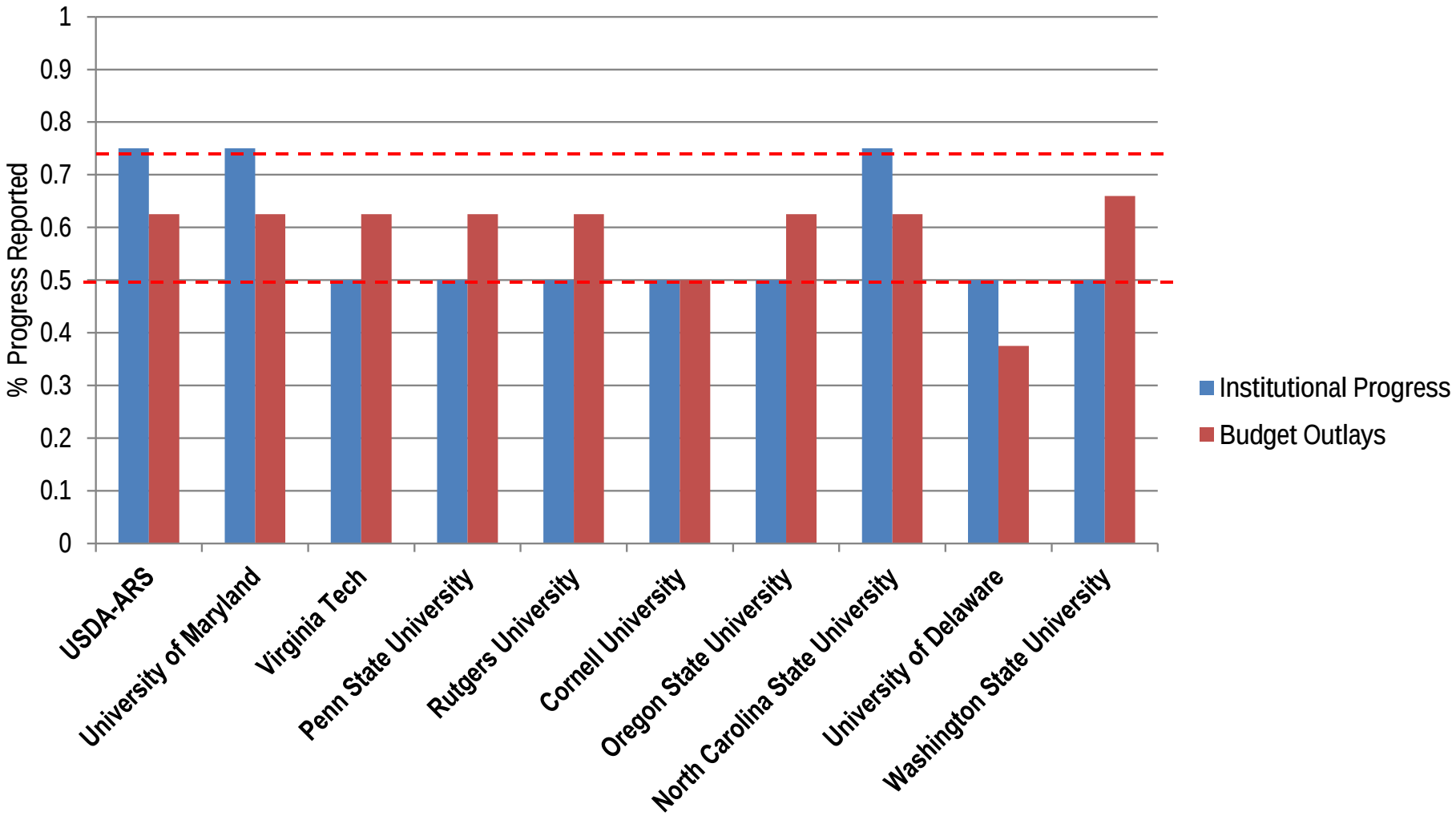
General Institutional Progress

- (●) 0% (Project Under Development)
- ( ) 25% (Year 1 Objectives Completed)
- ( ) 50% (Year 2 Objectives Completed)
- ( ) 75% (Year 3 Objectives Completed)
- ( ) 100% (Project Close-Out Initiated)

Subaward Budget Outlays

- (●) <25% of Project Total
- ( ) 25%-50% of Project Total
- ( ) 50%-75% of Project Total
- ( ) 75%-100% of Project Total
- ( ) Over Subaward Budget

Institutional Progress



Overall Project Progress

- Progress
  - Calculated based proposed effort x progress reported per institution. Then summed across ALL institutions.

    Σ (Proposed Institutional Effort) x (% Accomplished)

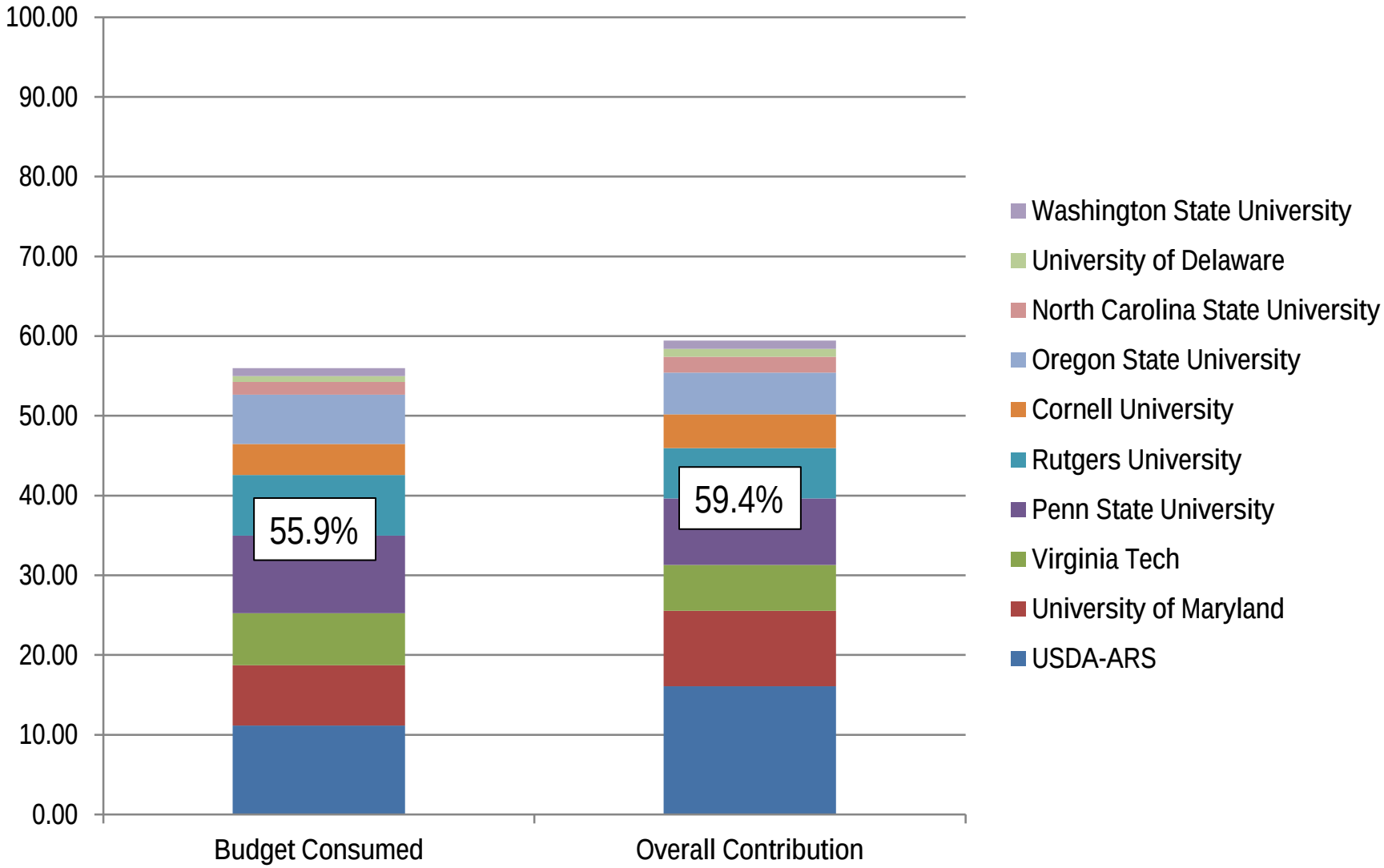
  - ex., Cornell
    - 8.47 (Proposed Effort) x 25.0 (% Accomplished) = 2.12 (toward overall progress)

- Budget Outlay
  - Calculated based proportional budget x subaward used per institution. Then summed across ALL institutions.

    Σ (Proportional Institutional Budget) x (% Subaward consumed)

  - ex., Virginia Tech
    - 10.45 (proportion of budget) x 37.5 (consumed) = 3.92 (toward overall budget consumption)

Overall Project Progress



Individual Objective Progress

Progress Toward Accomplishment of Individual Objectives

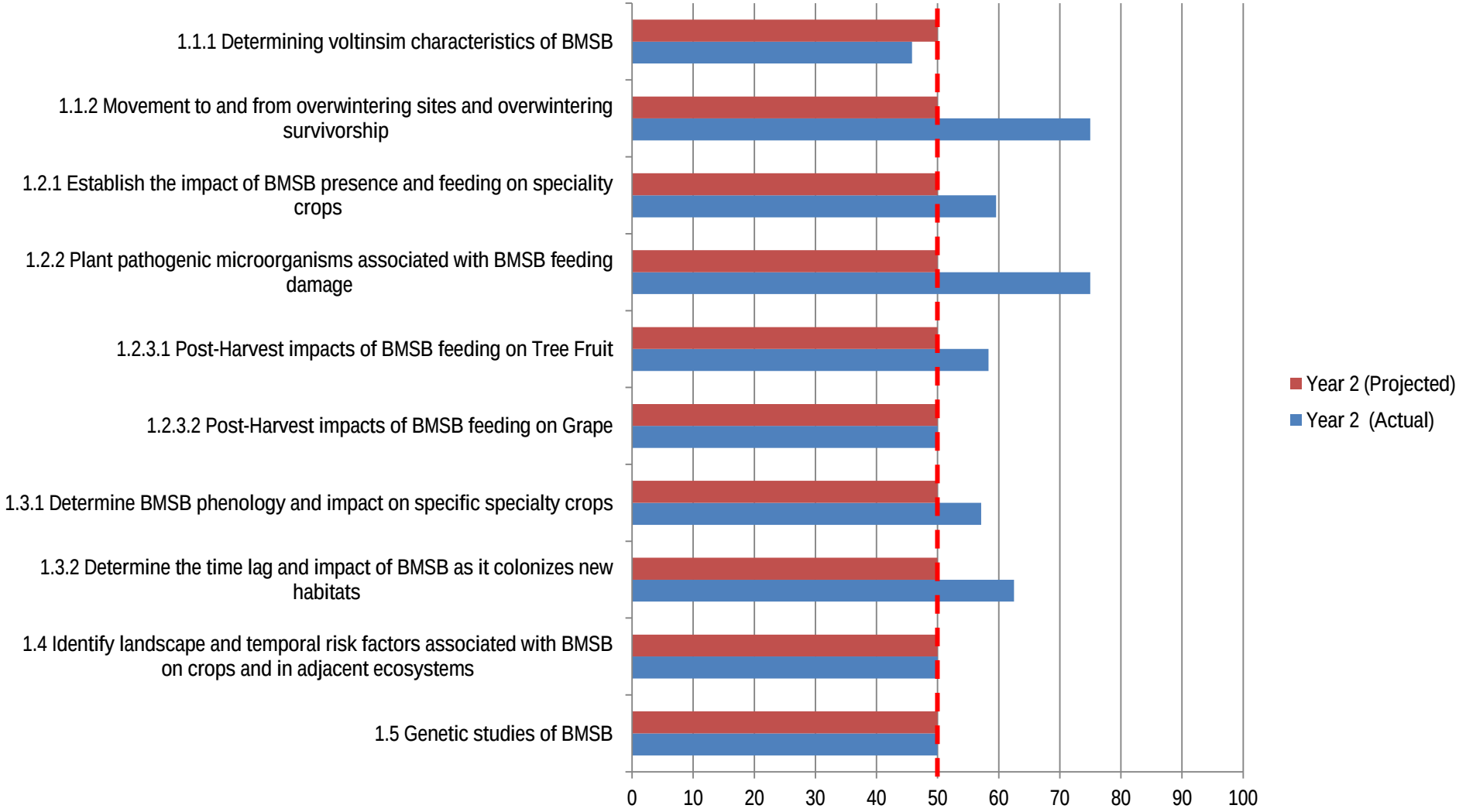
1.1.1. (Leskey)

Determining voltinism characteristics of BMSB.

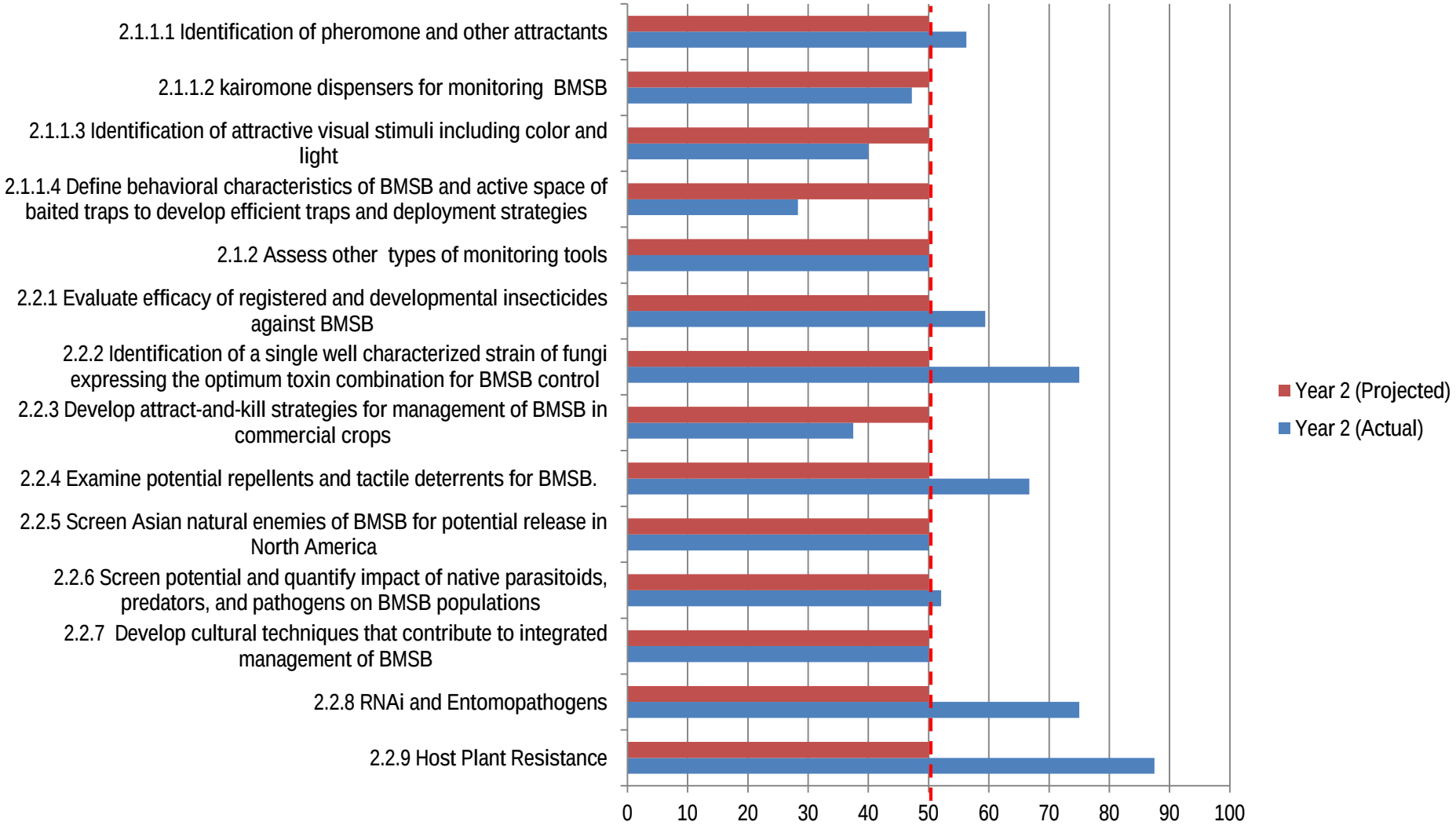
Categorical Progress

- ○ 0% (Under Development)
- ◉ 25% (Project Initiated)
- ○ 50% (Results Collected)
- ○ 75% (Data Analysis Completed)
- ○ 100% (Manuscript Completed)

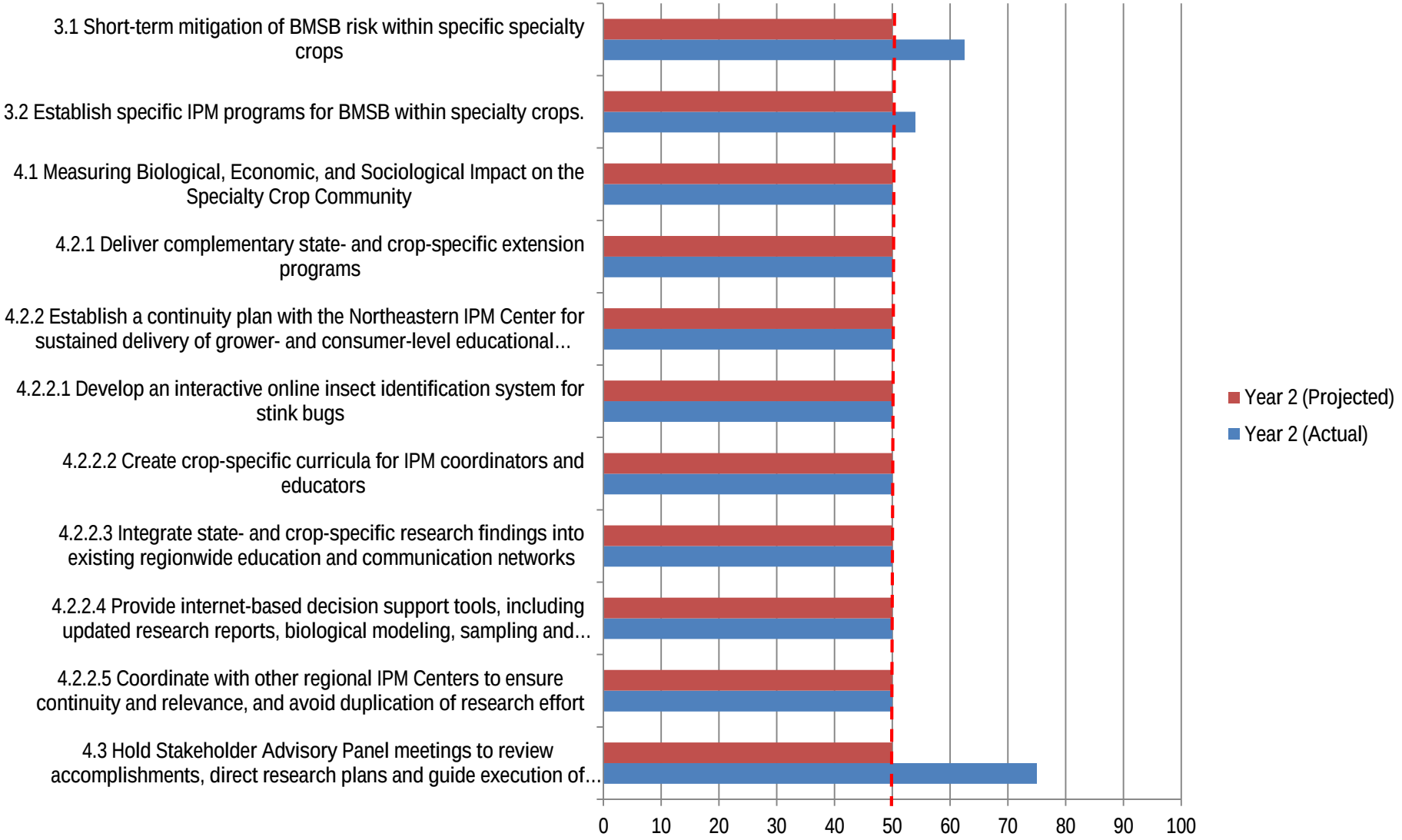
Objective 1. Establish biology and phenology of BMSB in specialty crops.



Objective 2. Develop monitoring and management tools for BMSB.



Objective 3. Establish effective management programs for BMSB in specialty crops *and* Objective 4. Integrate stakeholder input and research findings to form and deliver practical outcomes



Key Personnel Trained

Undergraduates	Graduate Students	Post-Docs
41	17	12

Feedback from 2012 Meeting

- More time for discussion at SAP.
- Fewer presentations/more consolidation at SAP.
- Semi-annual reporting.

Objectives Not Covered

- 2.2.1. Evaluate efficacy of insecticides.
- 2.2.4. Examine potential repellents and tactile deterrents for BMSB.
- 2.2.9. Host plant resistance.

BMSB SCRI SAP Schedule

- Morning Session One
  - Voltinism, Overwintering and Dispersal, Survey, Orchard Crops, Vegetables
  - Discussion
- Morning Session Two
  - Small Fruit, Ornamentals, Grape
  - Discussion
- Lunch
- Afternoon Session One
  - Spread and Impact, Landscape and Temoral Risk, Genetics, Monitoring, Attract and Kill
  - Discussion
- Afternoon Session Two
  - Asian Natural enemies, Native Natural Enemies, Economic, Outreach
- Open Discussion and Evaluations