

**AGRICULTURAL RESEARCH FOUNDATION
FINAL REPORT
FUNDING CYCLE 2015 – 2017**

TITLE: Evaluating candidate feeding deterrents for brown marmorated stink bug as an alternative management strategy

RESEARCH LEADER: Nik Wiman

COOPERATORS: Vaughn Walton

SUMMARY: Brown marmorated stink bug (BMSB), *Halyomorpha halys* (Stål) (Hemiptera: Pentatomidae) is an invasive insect pest from Asia that is known to be highly destructive on a wide range of commercial specialty crops produced in Oregon. The primary goal of this project is to assess feeding deterrents for BMSB as a potential management strategy and alternative to current insecticide-based management.

OBJECTIVES: The objective of this work is to determine whether products approved for use in organic agriculture or conventional “soft” products can be used to protect crops from damage by BMSB. Currently, management of BMSB is entirely based around intensive application of restricted use insecticides to prevent cosmetic and other damage to fruit

PROCEDURES: Conventional bioassays will also be used to evaluate feeding deterrence on blueberries. These tests will follow the survival of BMSB on treated compared to untreated blueberries in petri dishes. After 7 days, or the after the insects are dead, the blueberries will be removed and assessed for feeding activity

SIGNIFICANT ACCOMPLISHMENTS: Although the assays were begun in 2015, the PI changed positions in 2016 and transferred to a R&E experiment station off campus and this has delayed the work. The Potter Spray

Tower is located on campus and logistics have been challenging to continue the project. Efforts will be made to hire an undergraduate assistant to finish up the work in 2017.

BENEFITS & IMPACT: There is a strong need for alternatives to restricted use insecticides as a management strategy for BMSB. Currently, there are virtually no tools available to organic producers. For conventional growers, reduced-risk pest management solutions will be needed to maintain IPM programs.

ADDITIONAL FUNDING RECEIVED DURING PROJECT TERM: No additional funds were received for this project specifically, but five years of funding for similar work with *H. halys* was received from USDA-NIFA-SCRI.

FUTURE FUNDING POSSIBILITIES: None required.