#### BMSB and Small Fruit



Updates from 2012

Funding



**United States** Department of Agriculture

National Institute of Food and Agriculture

Specialty Crop Research Initiative Grant #2011-01413-30937

PENNSTATE

Collaborating Institutions









Center

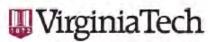




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#### **Small Fruit Team**

Cesar Rodriguez-Saona, Rutgers U., <u>Team Leader</u>
Doug Pfeiffer, Virginia Tech
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Peter Jentsch, Cornell U.
Greg Loeb, Cornell U.

## Objective 1.2 & 1.3: Impact on Specialty Crops (Small Fruit)



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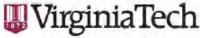




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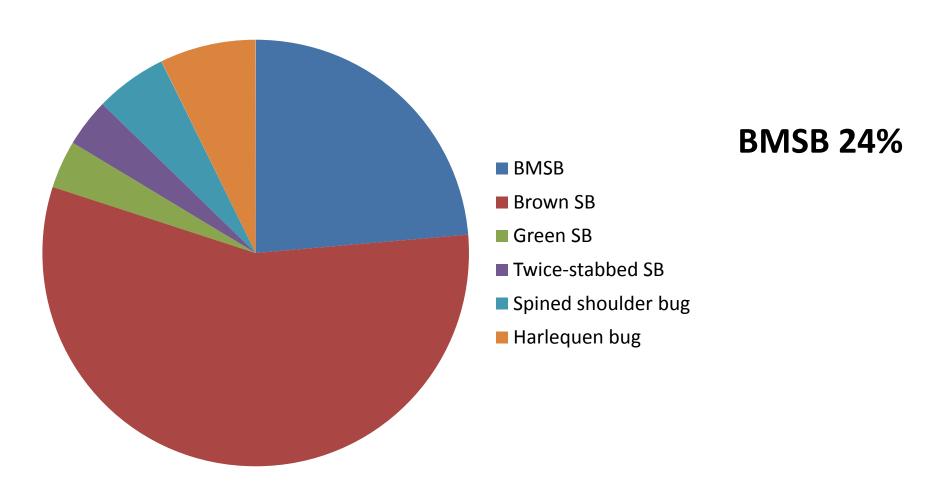






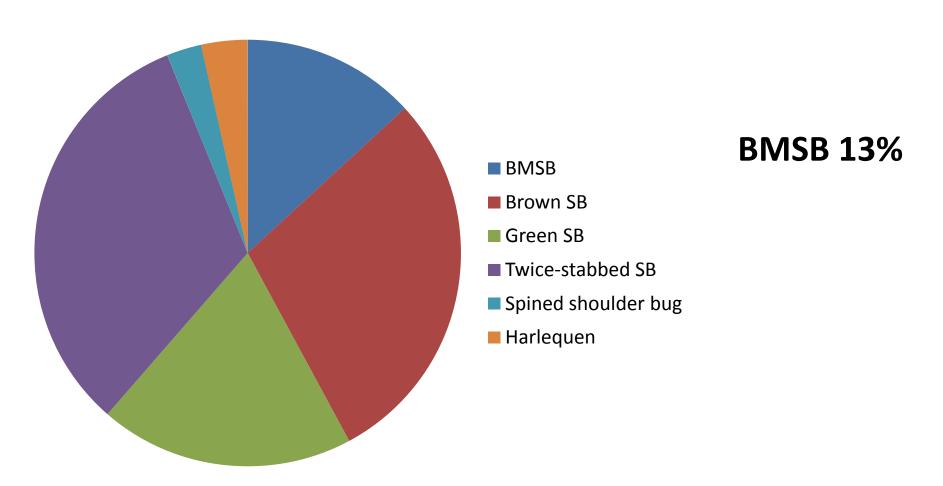


# Stink Bug Community in Primocane Raspberries, Kentland Farm (2011)



**Basnet & Pfeiffer** 

# Stink Bug Community in Primocane Raspberries, Kentland Farm (2012)



**Basnet & Pfeiffer** 

# Blueberries Conducted BMSB transect walks

- BMSB counts taken at 8 farms weekly
- 3 minute walk / transect
- May 30<sup>th</sup> August 20<sup>th</sup>
  - Farms (# of transects at each farm)
  - ABC (23)
  - R&S (9)
  - Macrie (16)
  - Merlino (5)
  - Harvest Star (10)
  - Del Rossi (16)
  - Whalens (8)
  - Donio (4)

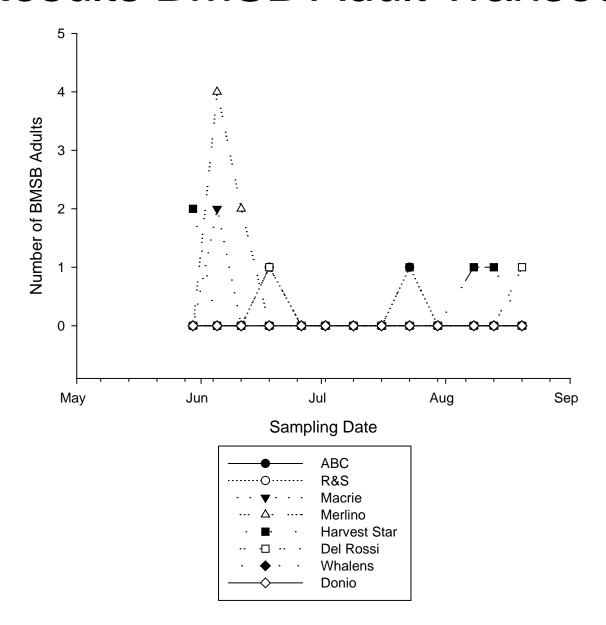
Whalen Blueberry Farm



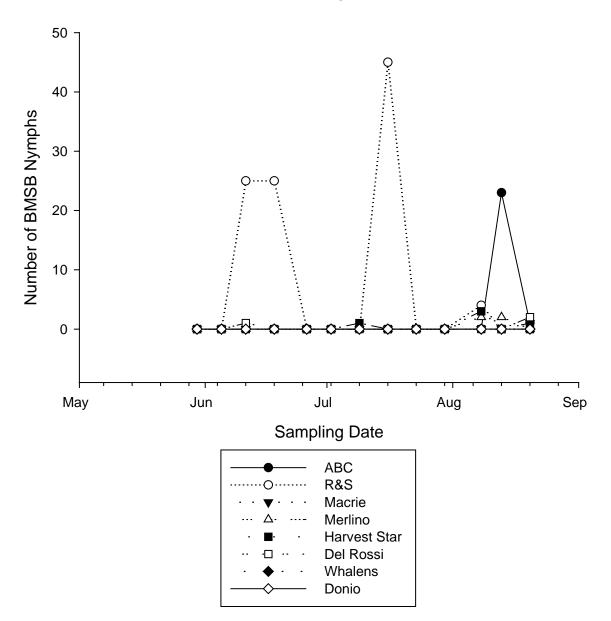
#### Harvest Star



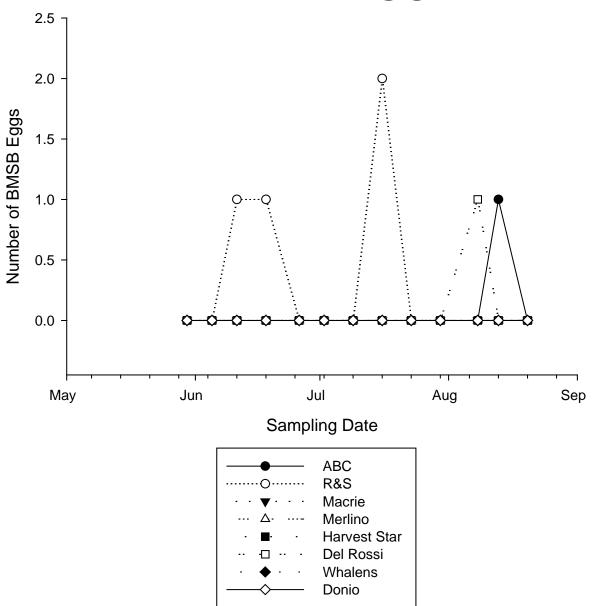
#### Results BMSB Adult Transect



## Results BMSB Nymph Transect

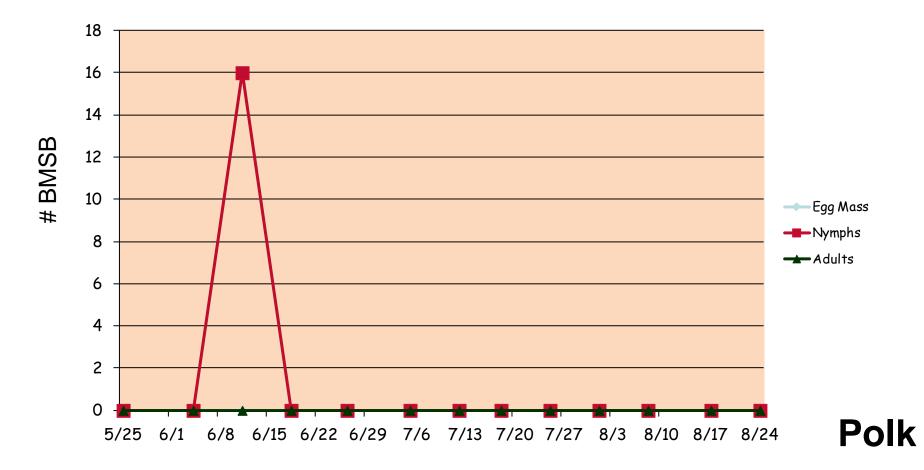


### Results BMSB Egg Transect



#### BMSB in New Jersey

- BMSB counts taken at 39 sites near wooded edges
- 3 minute counts



#### Examine BMSB damage on blueberries

- Objectives
- 1.2.1. Establish the impact of BMSB presence and feeding on small fruit
- 1.3.1 Determine BMSB phenology and impact on specialty crops

#### Examine BMSB damage on blueberries

- BMSB adults or nymphs
  - 0, 1, 2 or 5
- Caged BMSB on blueberries

Each week BMSB treatment was moved to another bag on the

same bush

5 weeks total



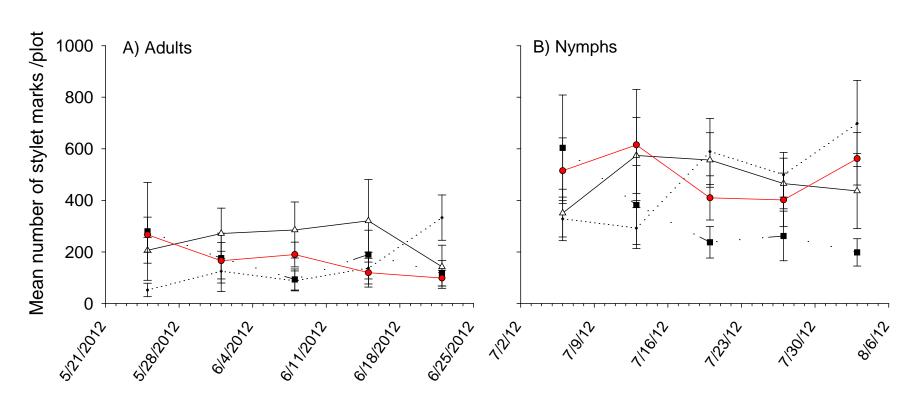


#### Methods Continued

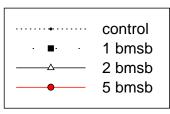
- Harvested berries
  - Recorded % discoloration
  - Recorded the number of berries in the bag (berries aborted)
  - Recorded number of stylet marks
  - Dissected berry and recorded
     % necrosis



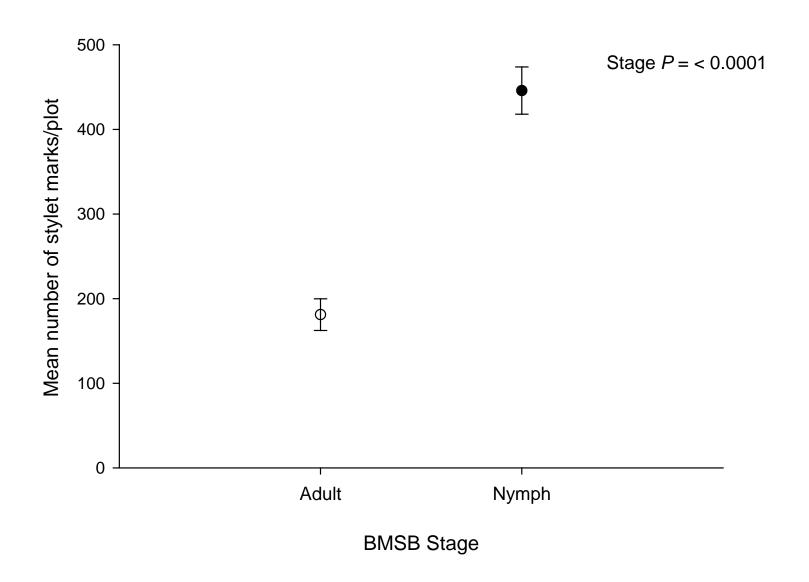
### Results Stylet Marks



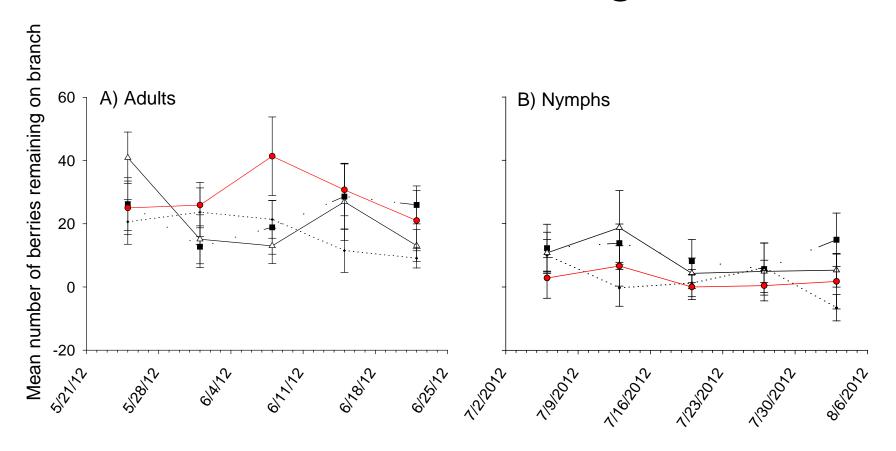




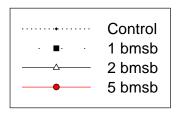
### Stylet Marks Adult vs. Nymphs



#### Results Berries Remaining on Branch



Sampling Date



# Berries Remaining on Branch Adult vs. Nymph

