

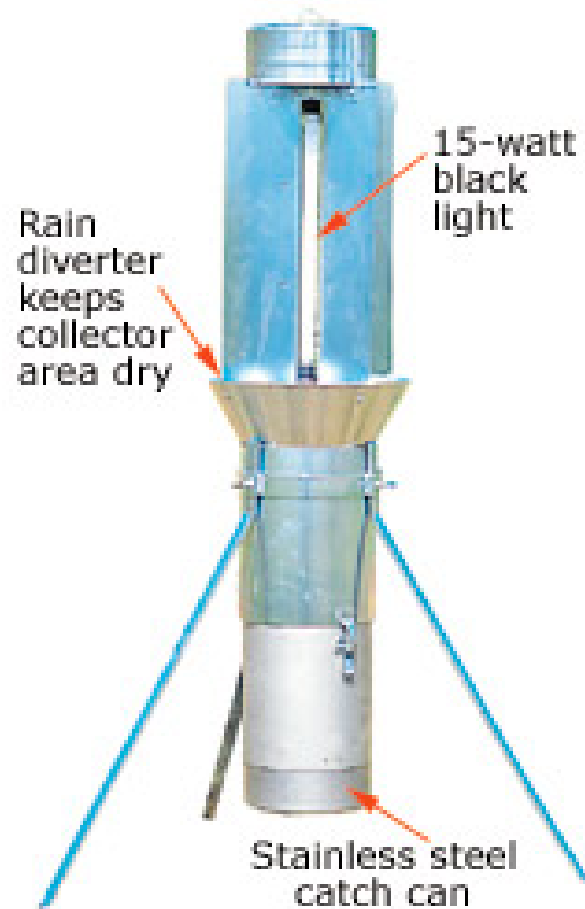
BMSB Monitoring and Damage in Lima Beans and Sweet Corn



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Nov 27, 2012

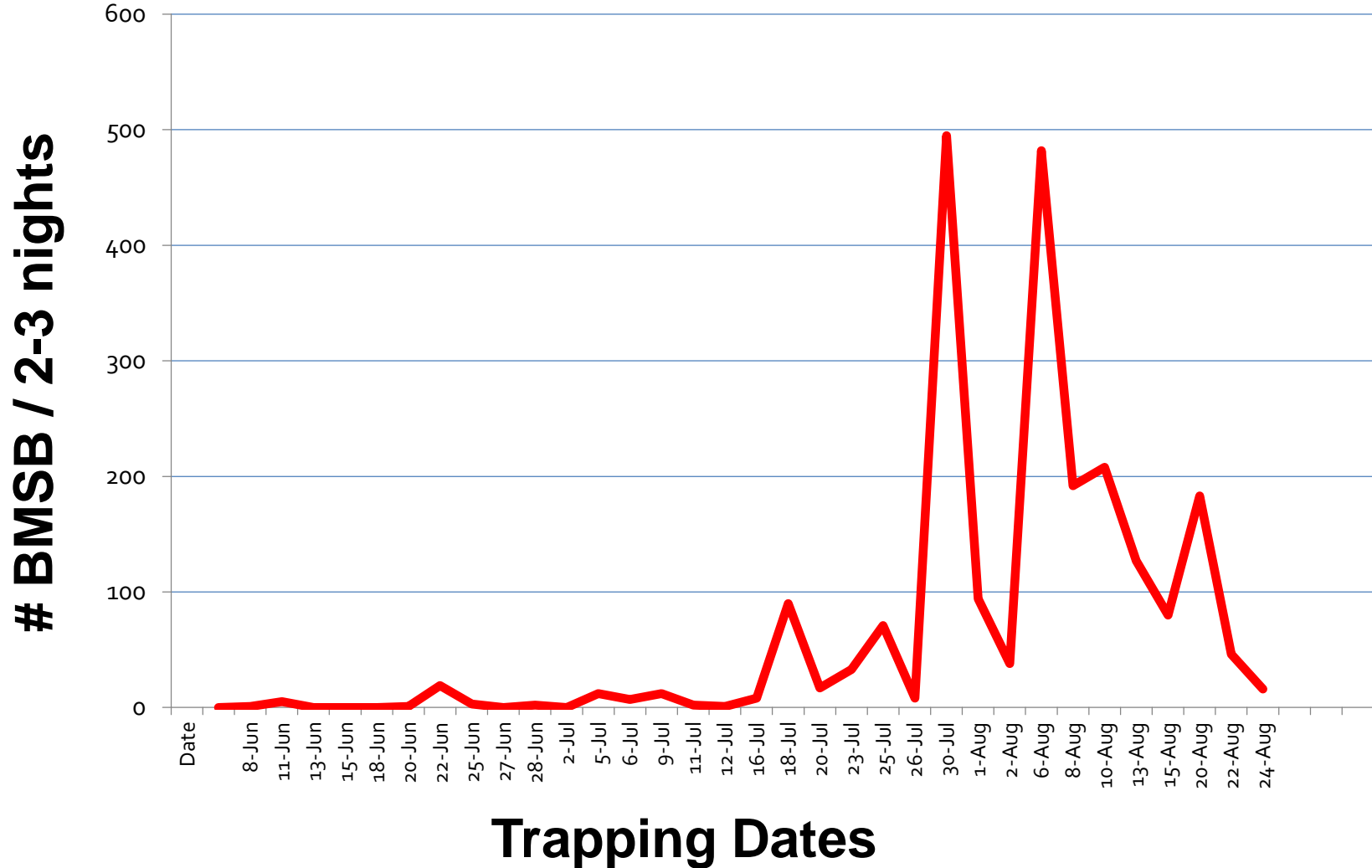
Monitoring

- 13 BLTs throughout the state - 7 on sweet corn farms, 4 on lima bean farms and 2 on UD research farms
- Rescue Lures around sweet corn and lima bean sentinel plots in Newark

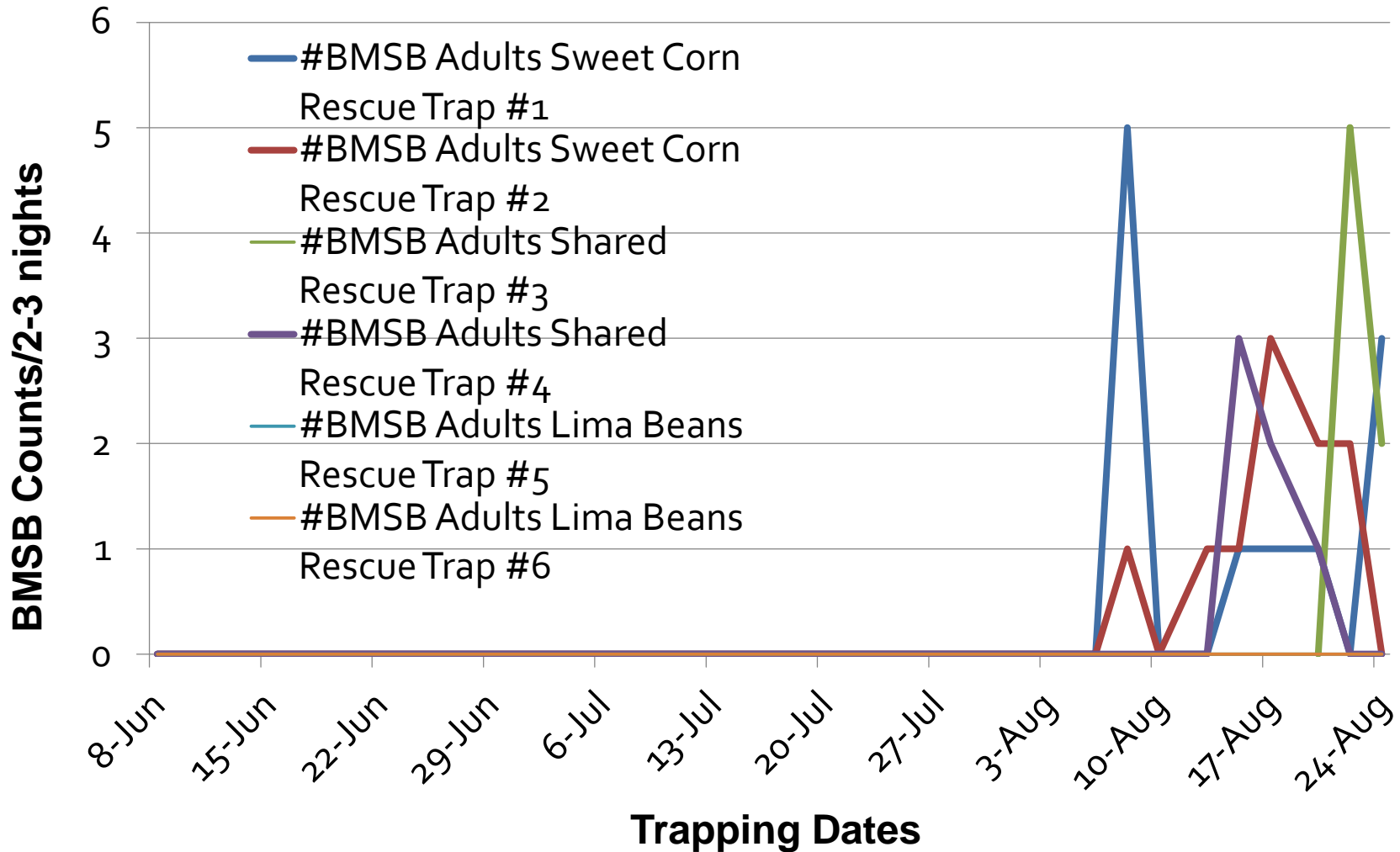


University of Delaware – Newark

BMSB BLT Counts – 2012



Rescue Trap Counts – Newark DE



Tassel Infestations



photo: B. Cissel



P. Sylvester, Un of DE

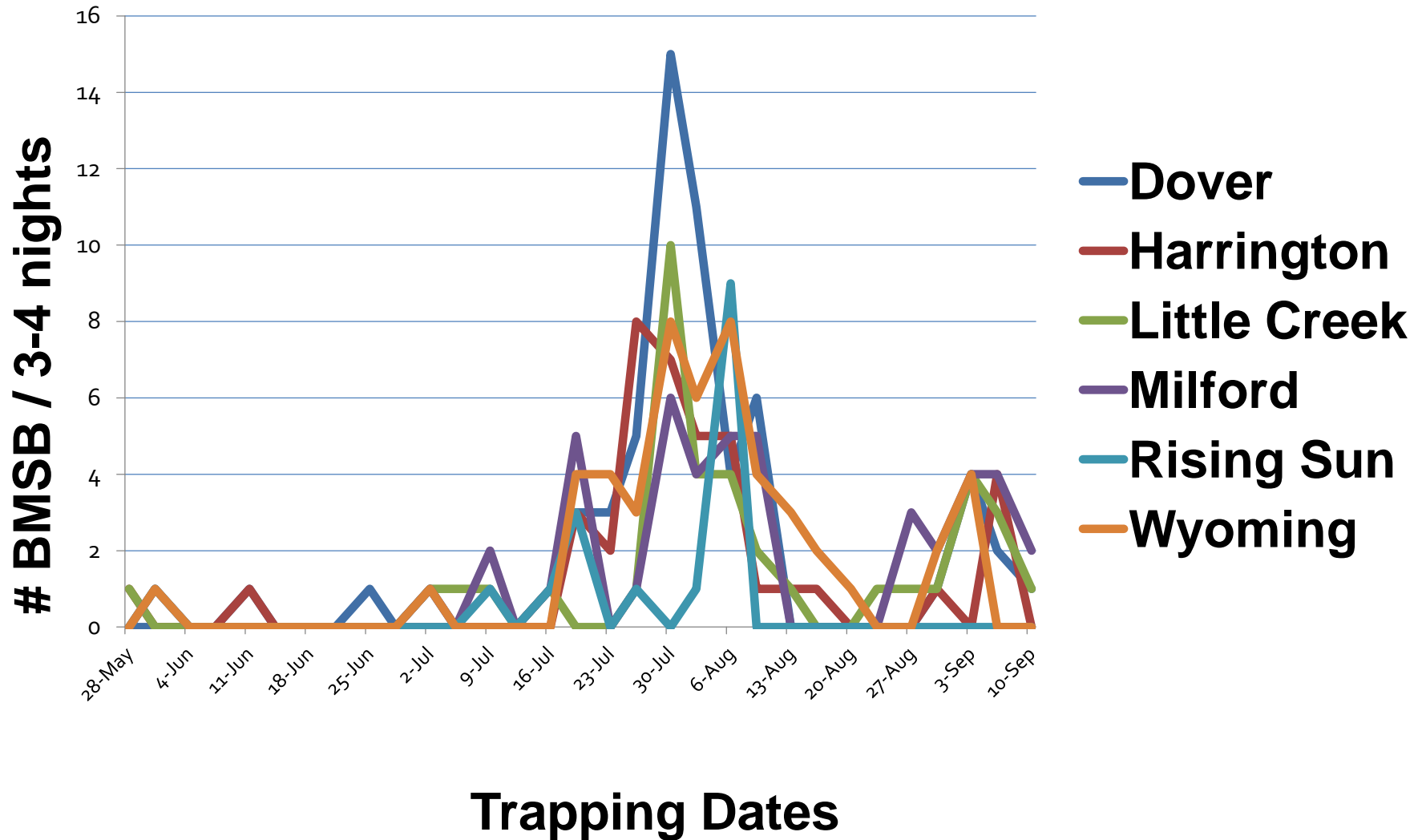


K. Kamminga

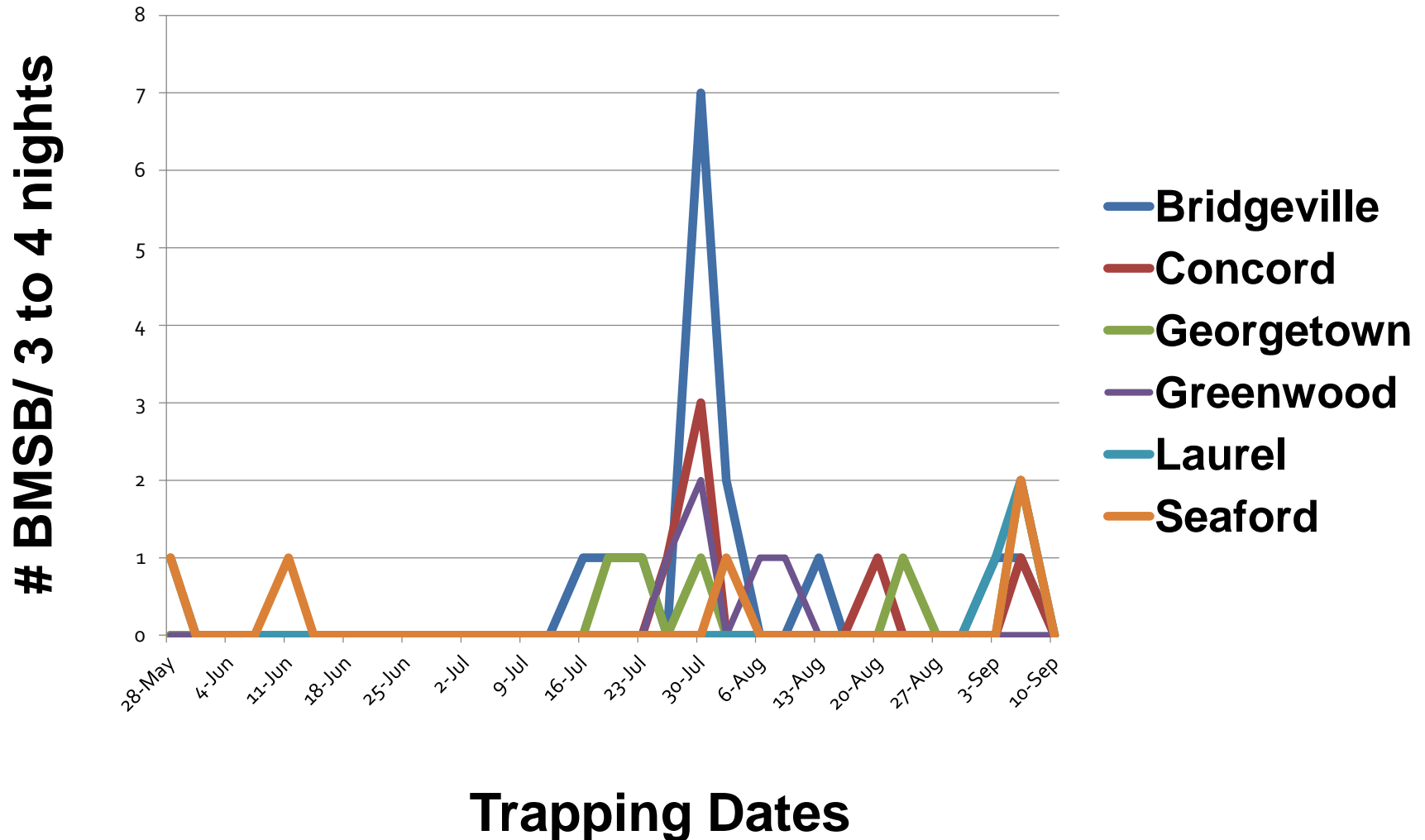


photos: M.Walfred, Un of DE

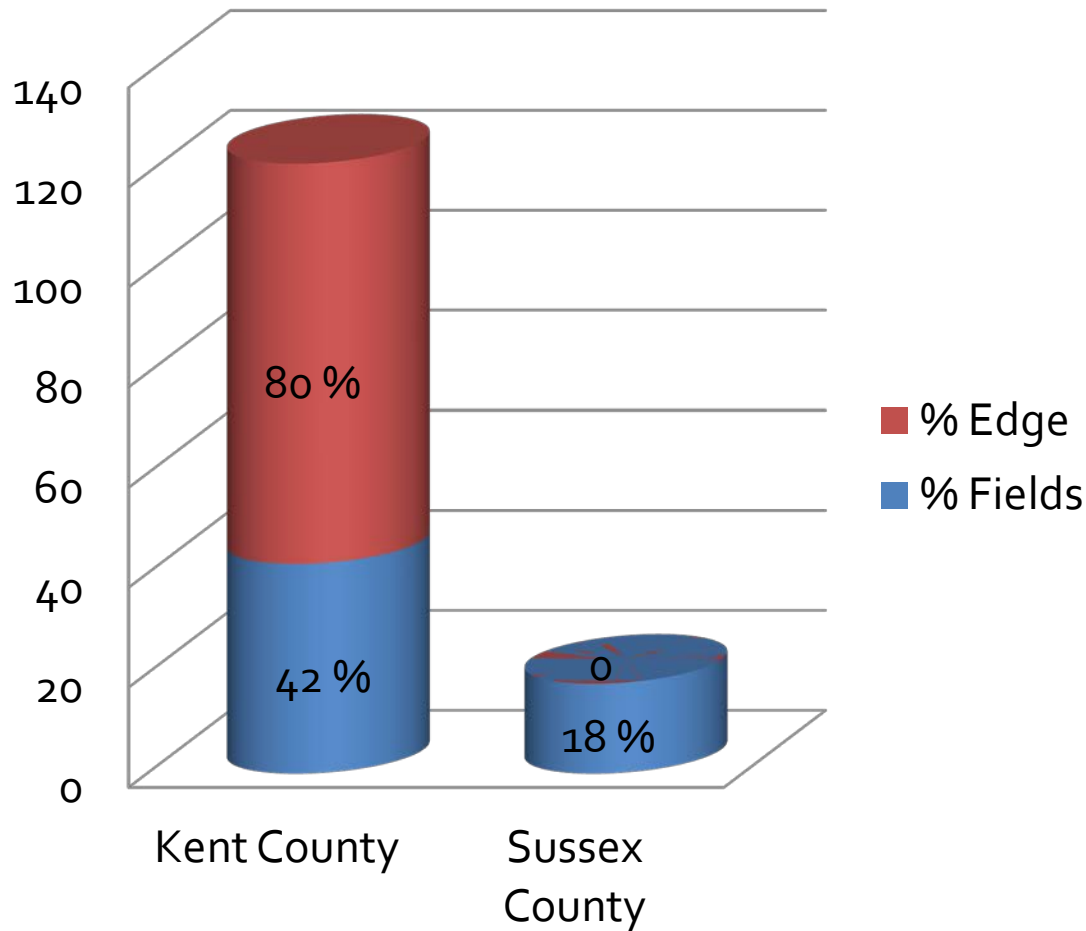
Kent County BMSB BLT Counts – 2012



Sussex County BMSB BLT Counts - 2012



Lima Bean BMSB Survey - 2012



Surveyed 23 fields
(2,000 acres)
processing lima
beans - sweep net
sample - July 5 to
Sept 11

Lima Bean Cage Study – Sentinel Plot

- Bags placed on plants – 3 plants/foot of row - first bud
- Four reps per growth stage
- One BMSB adult per bag
- Left bugs in bags for 7 days—checked for live bugs 3 times
- Harvest Data : puncture wounds on pods and shelled beans



photo: A. Herbert, VPI

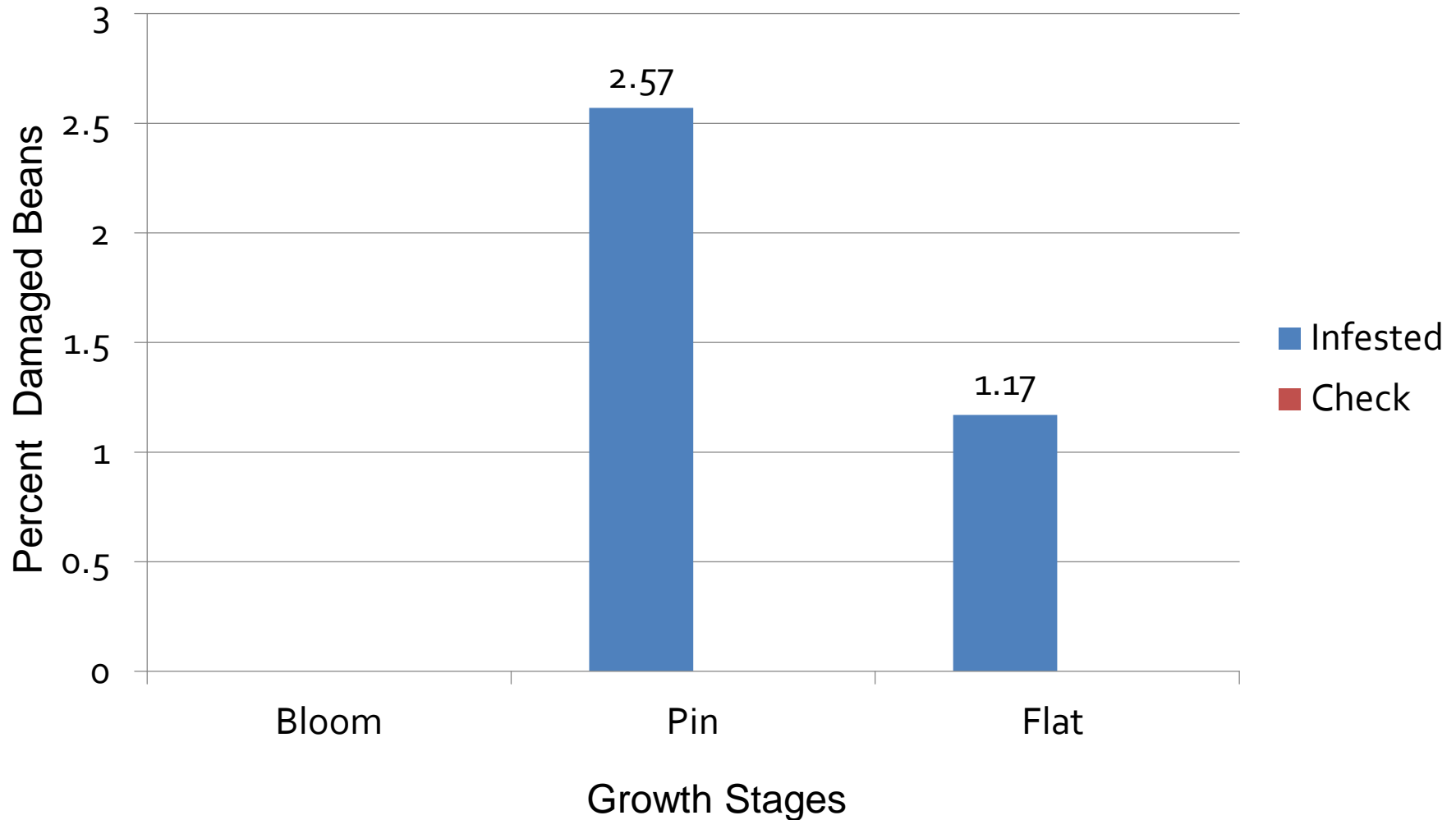


BMSB Damage to Lima Beans



Photos: B. Mulrooney, Un of DE

Lima Bean Cage Study



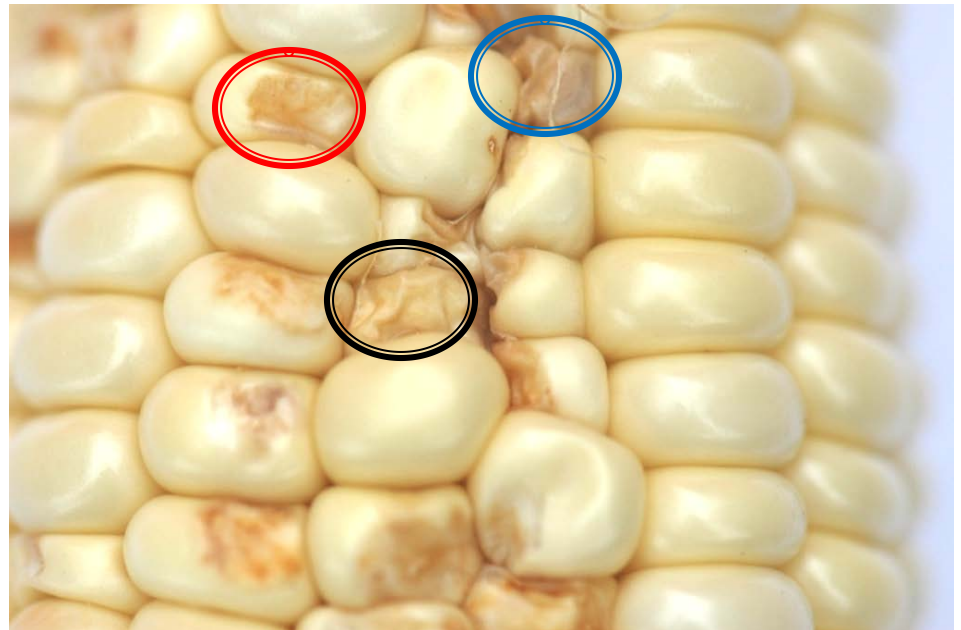




photos: B. Cissel

■ Damage Evaluations

- **Discolored Kernels**
- **Sunken Kernels**
- **Blasted Kernels**
 - **Aborted**



Objective



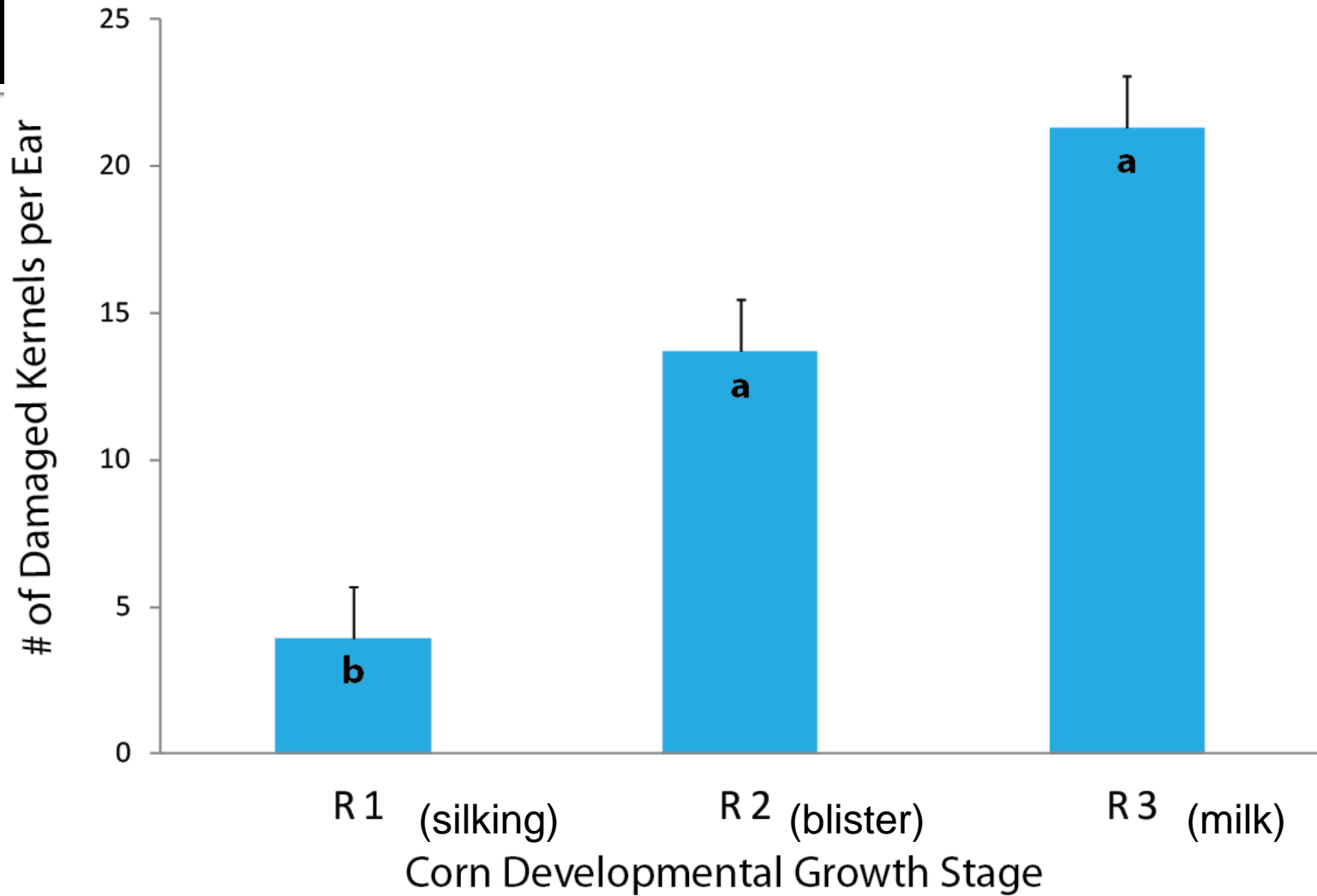
Determine the effects of BMSB feeding on sweet corn ears at different:

1. Bug densities
2. Corn developmental growth stages

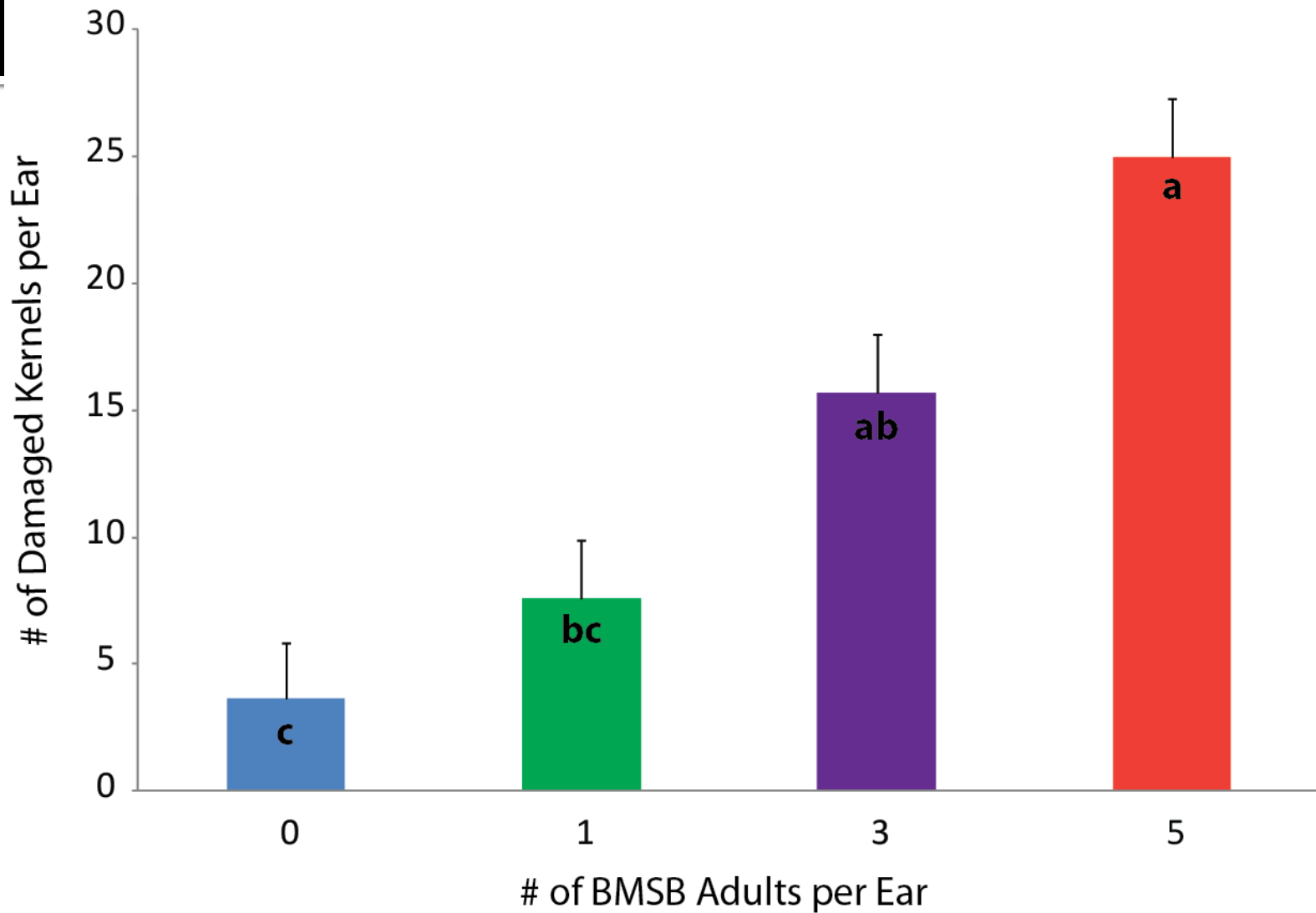
2011 Results



Effect of BMSB Infestation Timing on Sweet Corn

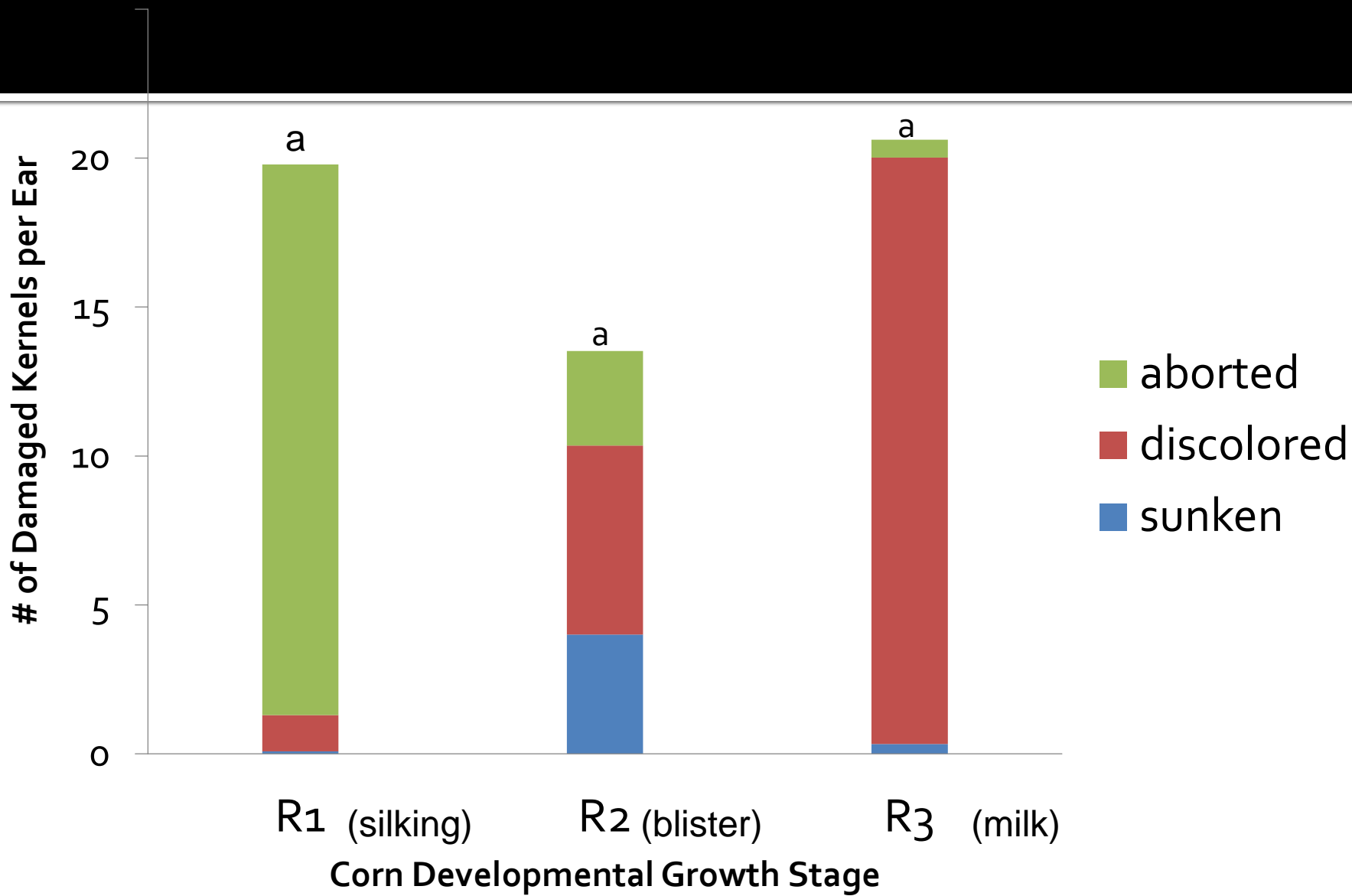


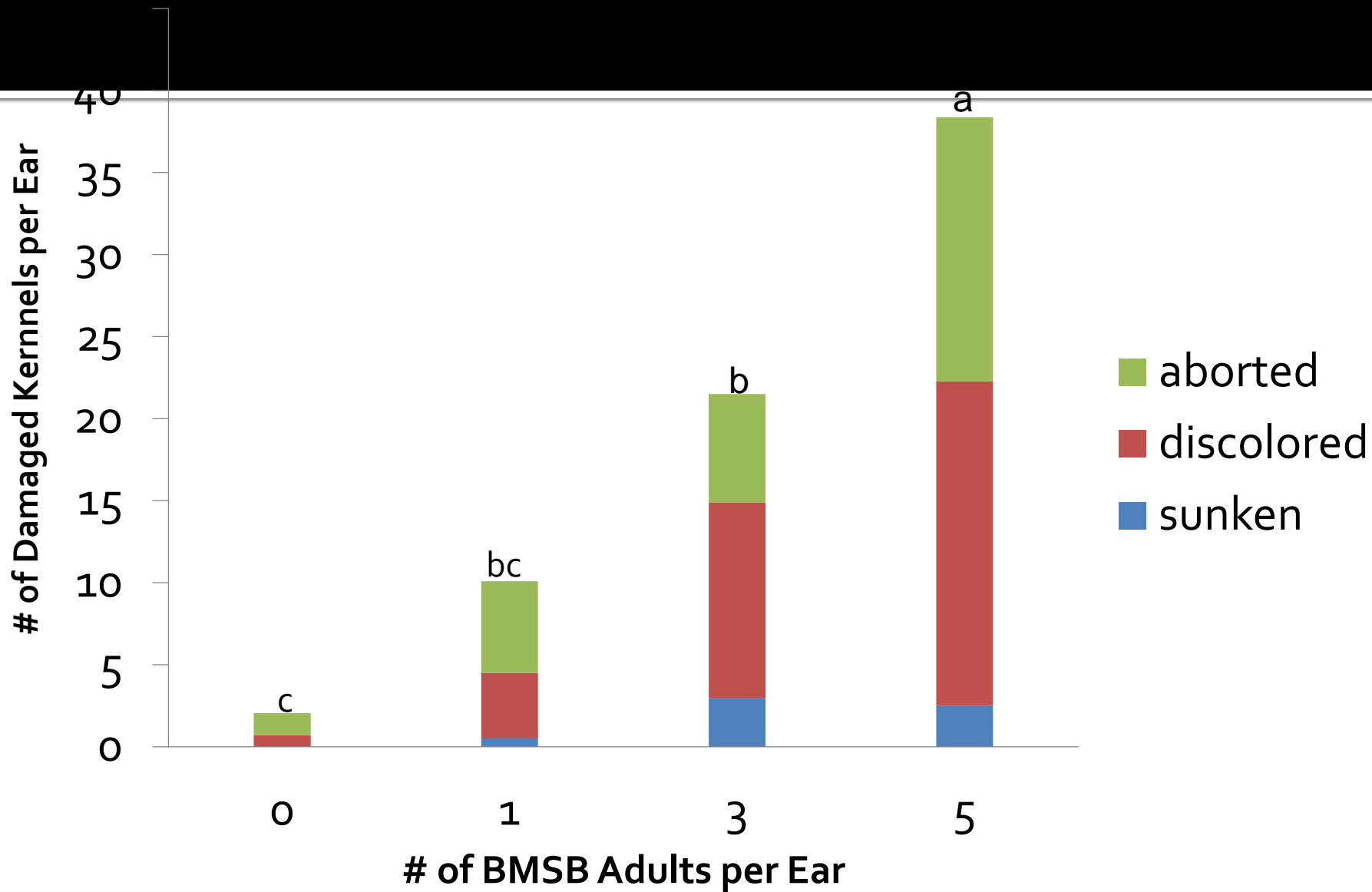
Effect of BMSB Density on Sweet Corn



2012 Preliminary Results









Infestation initiated at silking stage, 3-5 BMSB Adults/Ear

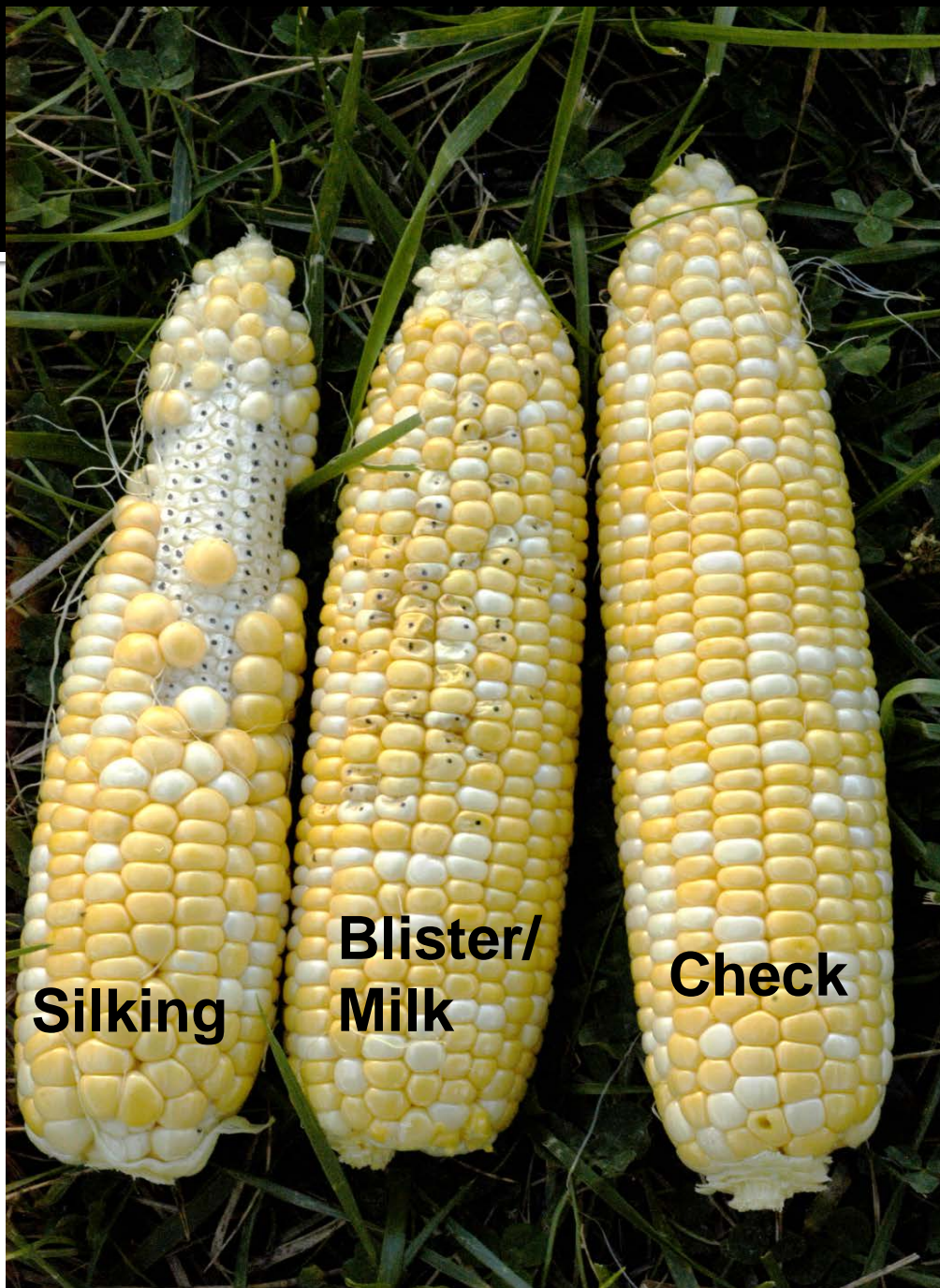


B. Cissel, University of DE

Early – Silking Stage

Incomplete ear fill??





Conclusions

- Infestations occurring prior to pollination may result in incomplete kernel fill
- BMSB must be managed from ear shank emergence to harvest

Questions ?



- **Bill's Graduate Committee** : Joanne Whalen, Chuck Mason, Judy Hough-Goldstein, Cerrutti Hooks
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