

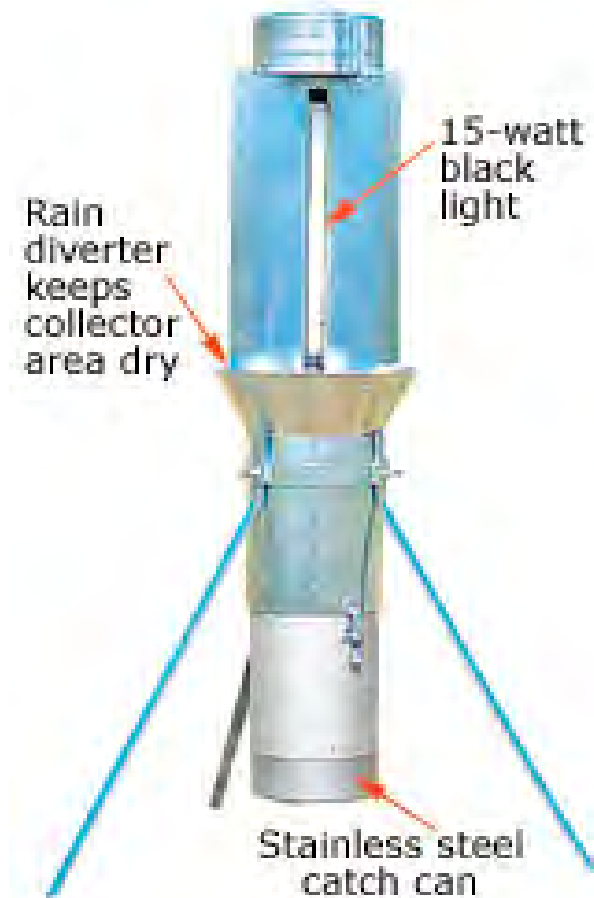
# ***BMSB Monitoring and Damage in Lima Beans and Sweet Corn***



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University of Delaware  
Nov 27, 2012

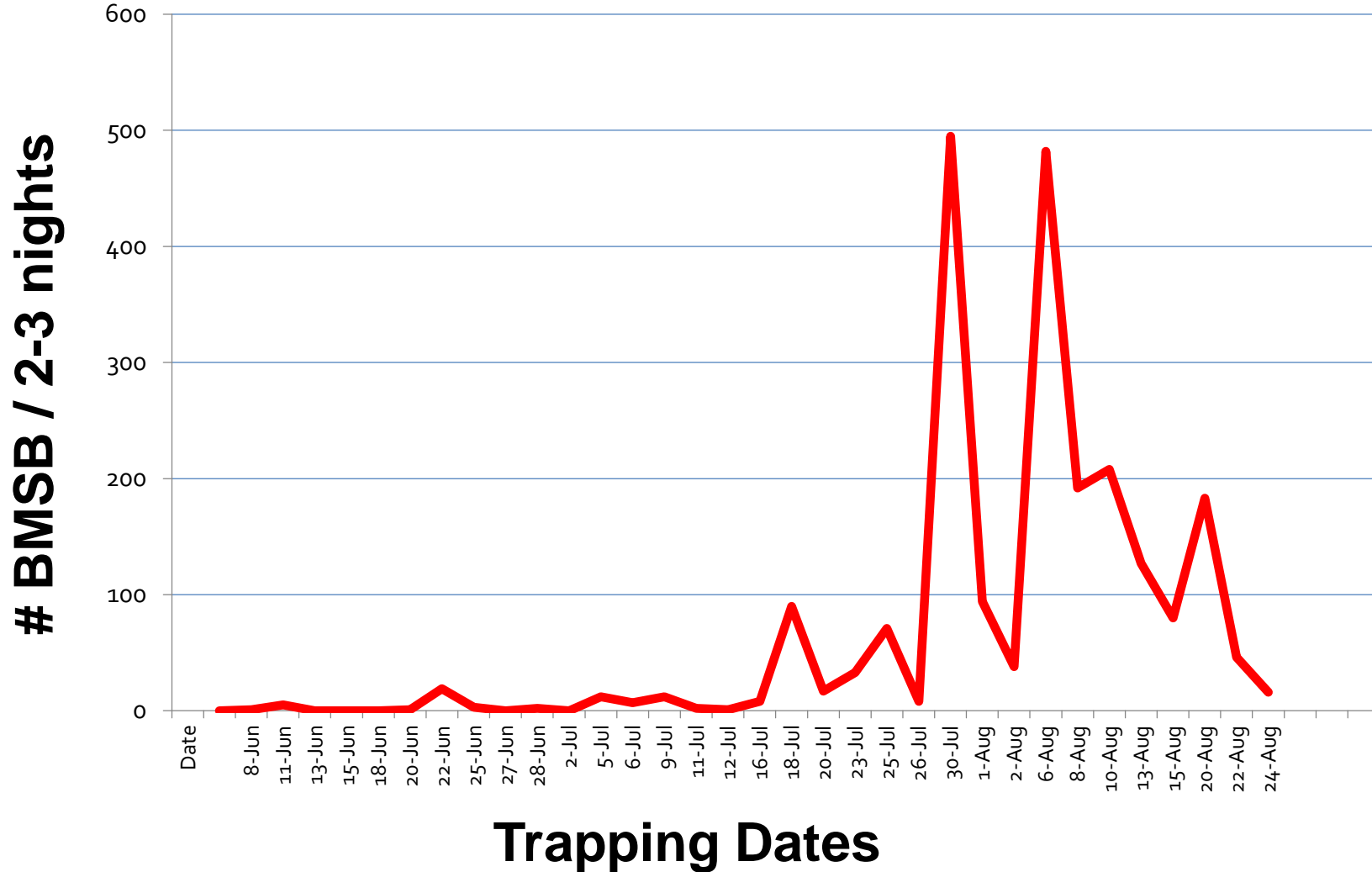
# Monitoring

- 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

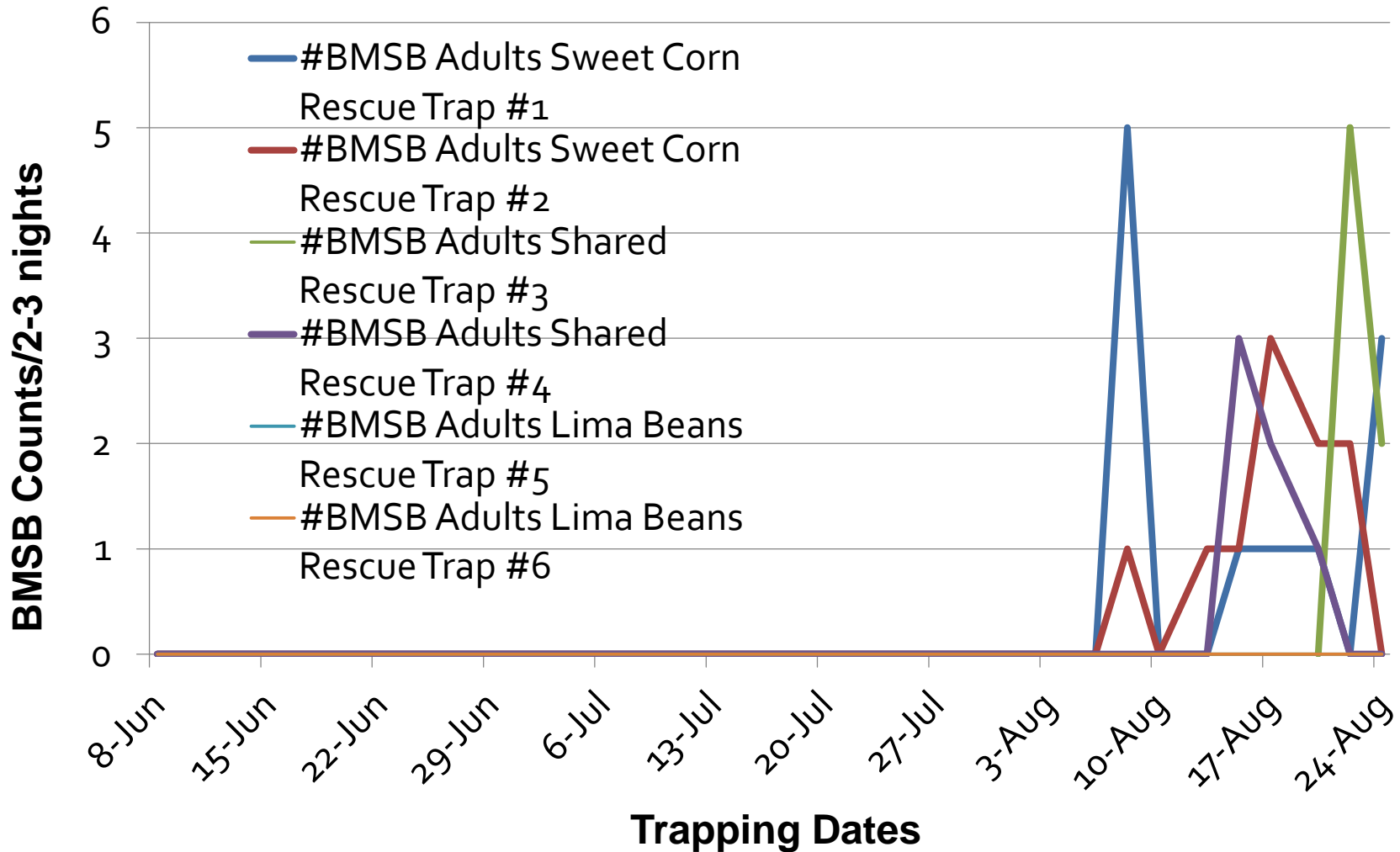


# University of Delaware – Newark

## BMSB BLT Counts – 2012



# Rescue Trap Counts – Newark DE



# Tassel Infestations



photo: B. Cissel



P. Sylvester, Un of DE

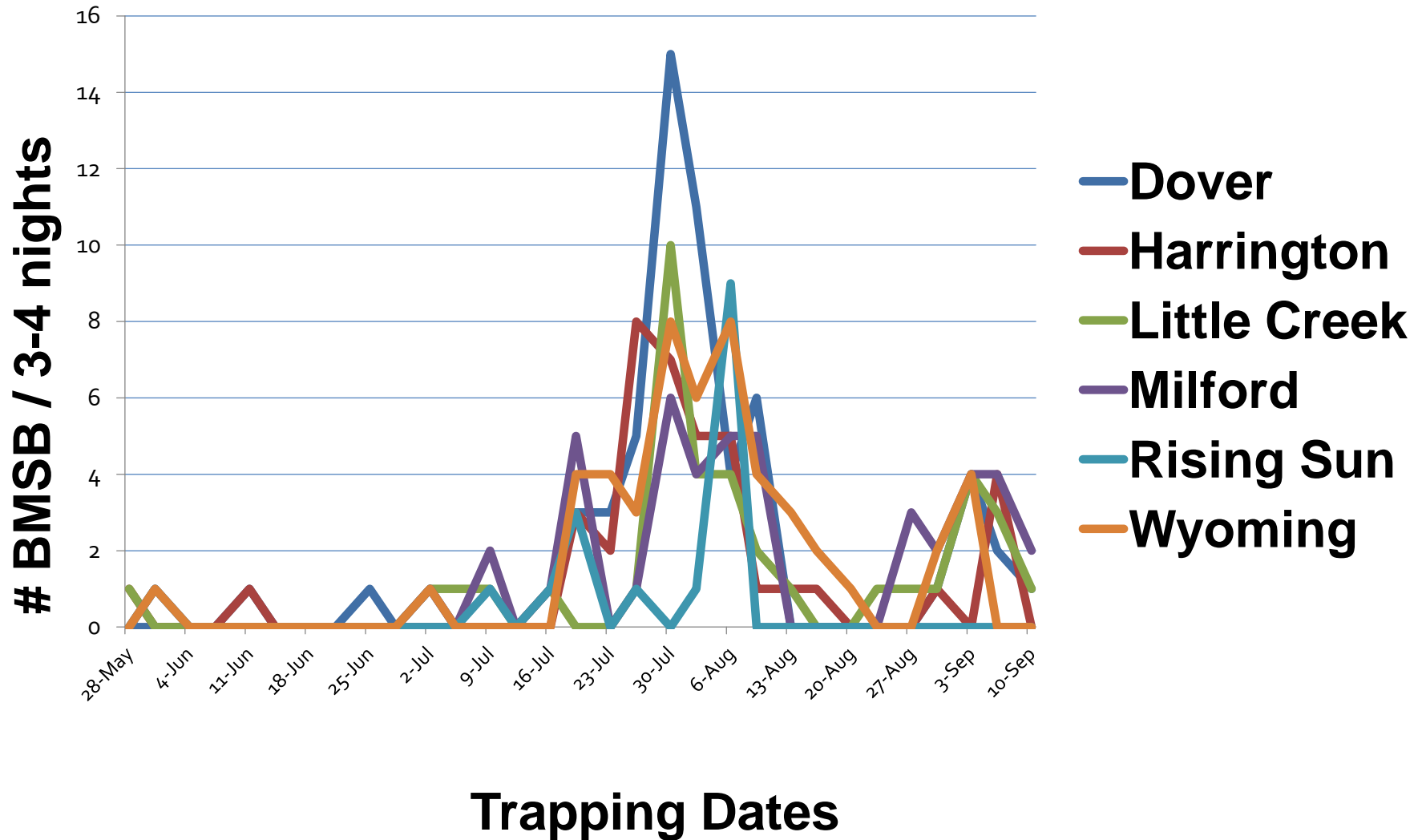


K. Kamminga



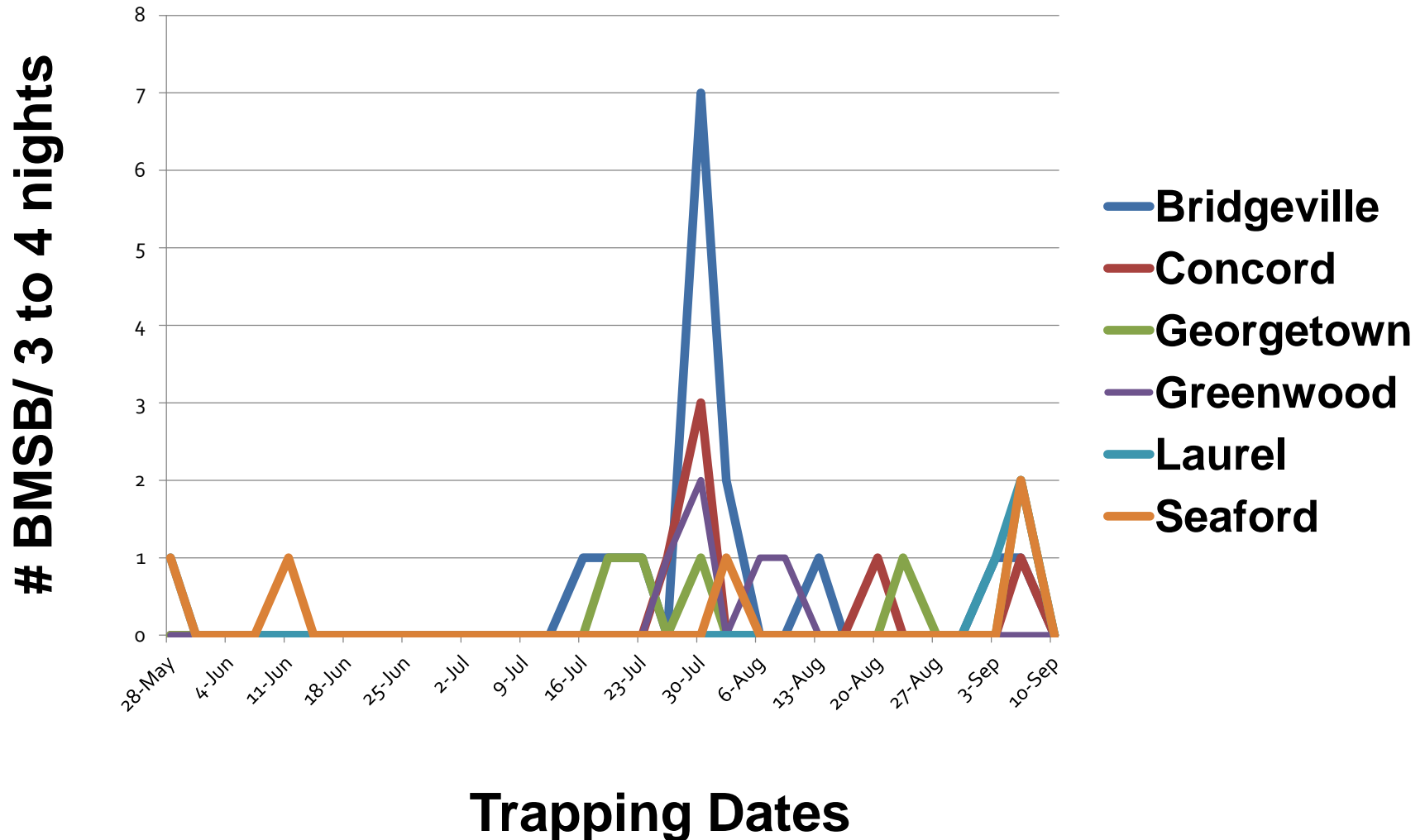
photos: M.Walfred, Un of DE

# Kent County BMSB BLT Counts – 2012

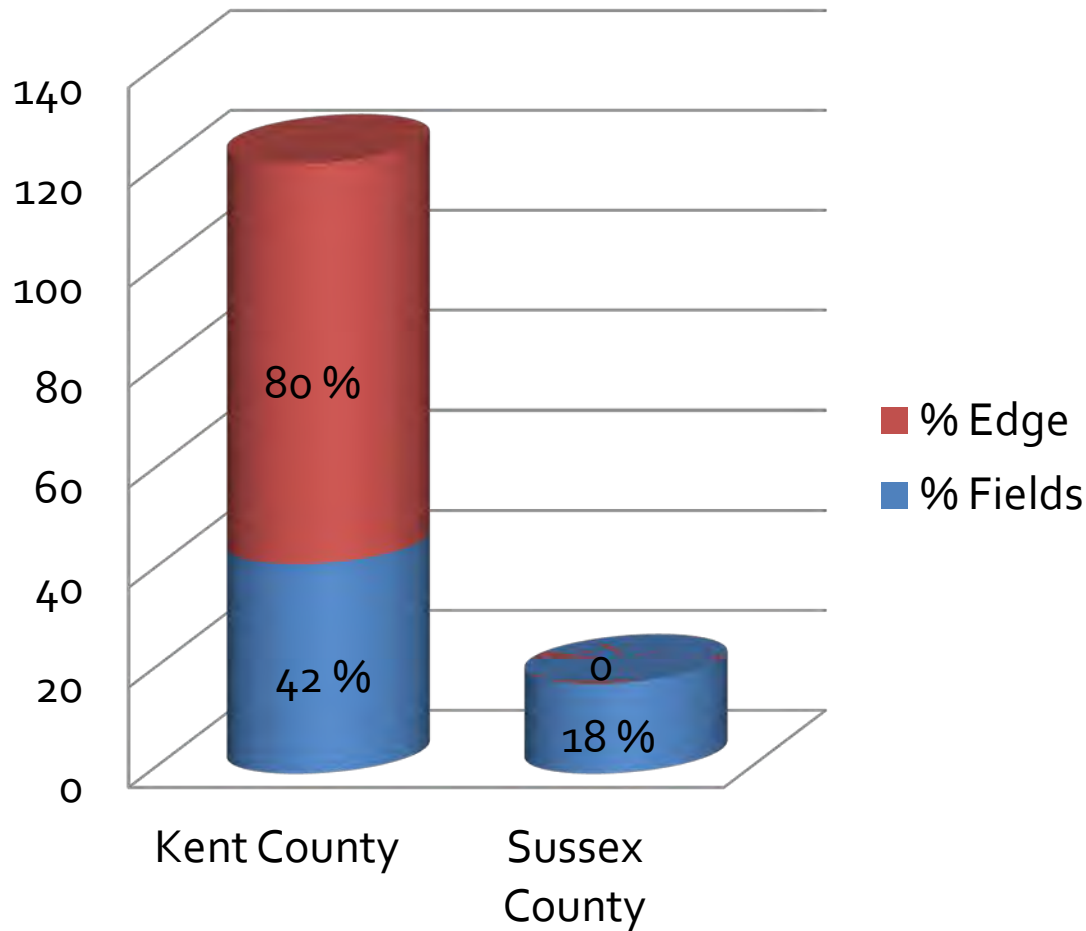




# Sussex County BMSB BLT Counts - 2012



# 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

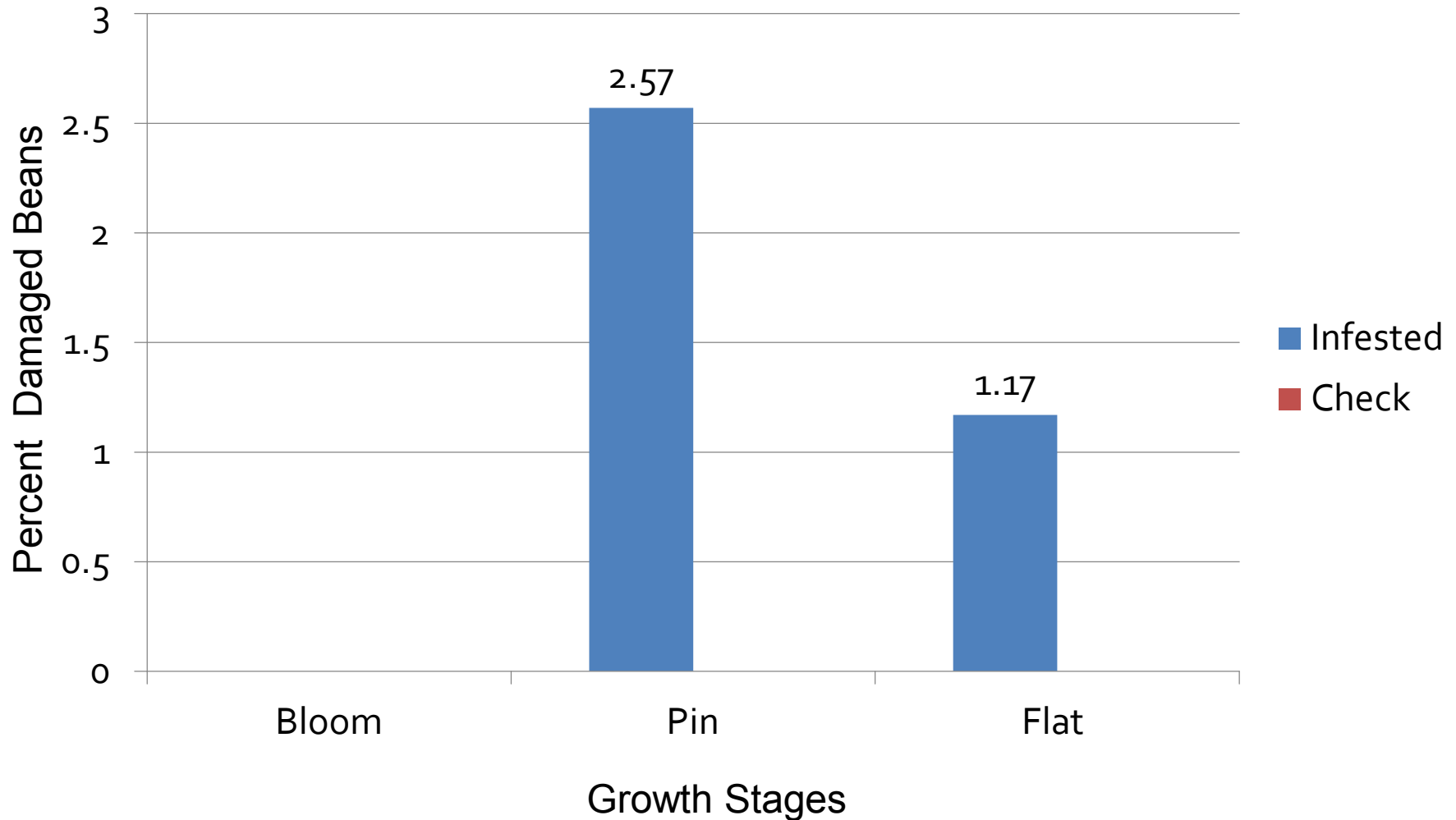


# BMSB Damage to Lima Beans



Photos: B. Mulrooney, Un of DE

# Lima Bean Cage Study



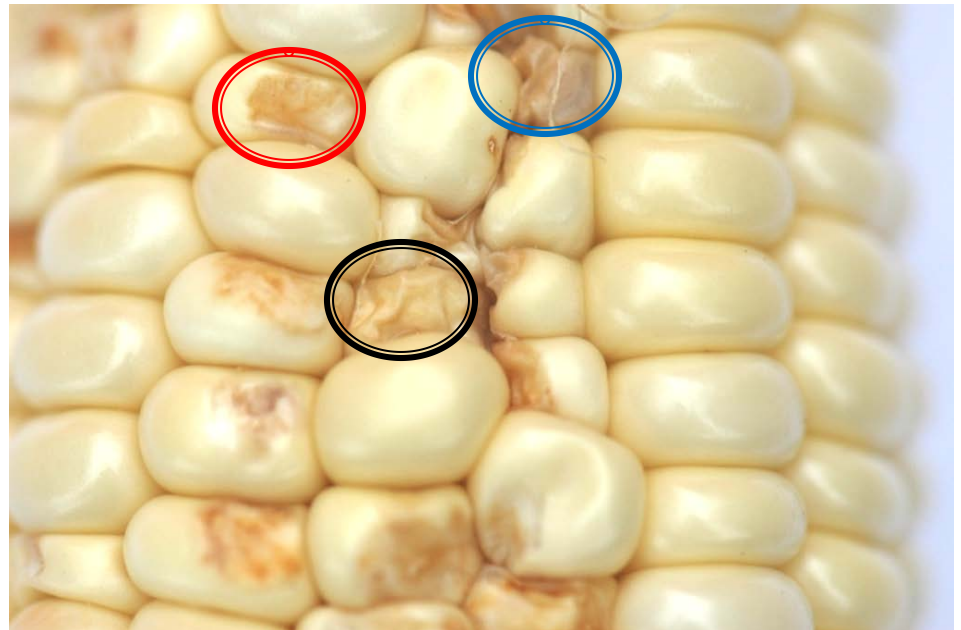




photos: B. Cissel

## ■ Damage Evaluations

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





# Objective



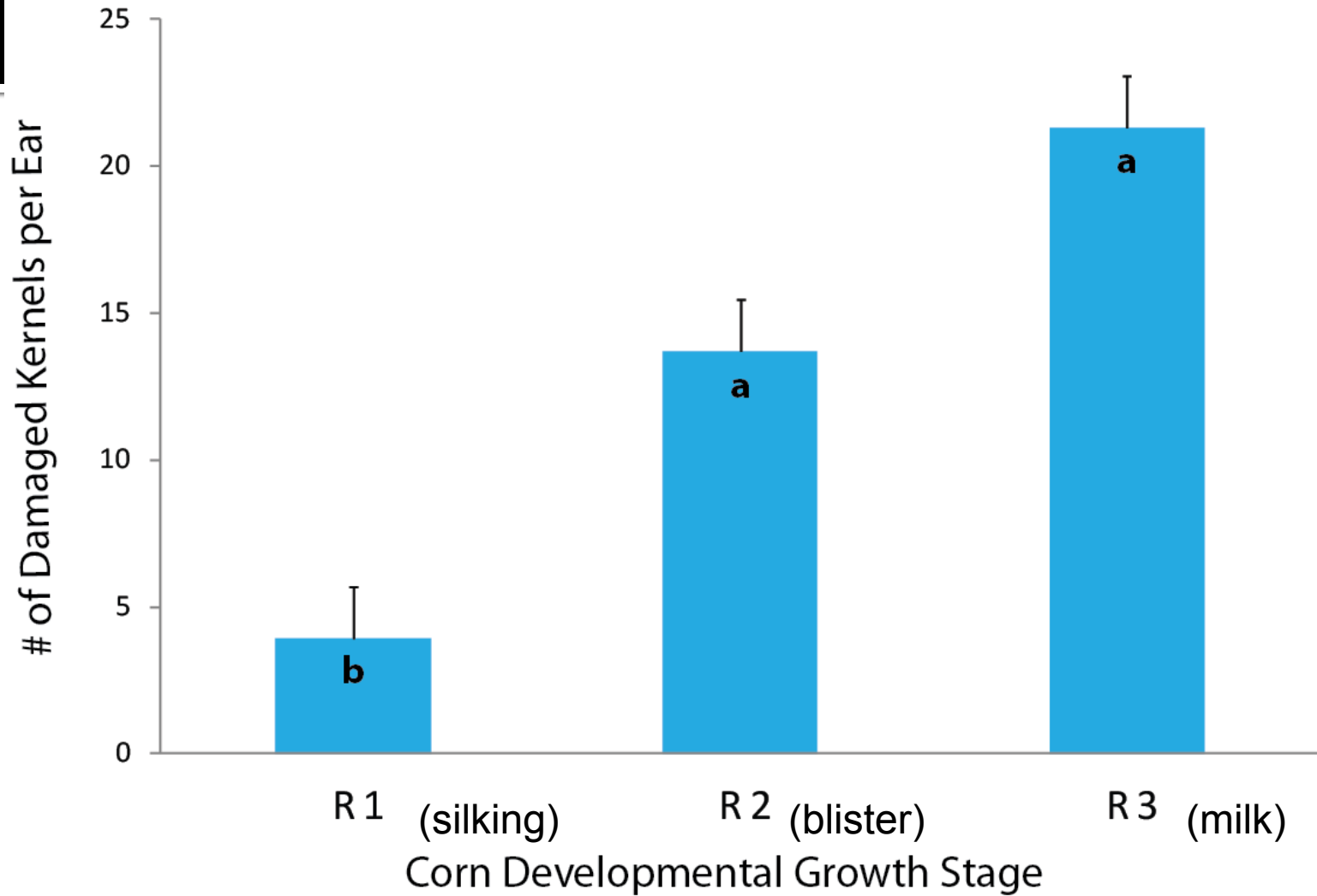
Determine the effects of BMSB feeding on sweet corn ears at different:

1. Bug densities
2. Corn developmental growth stages

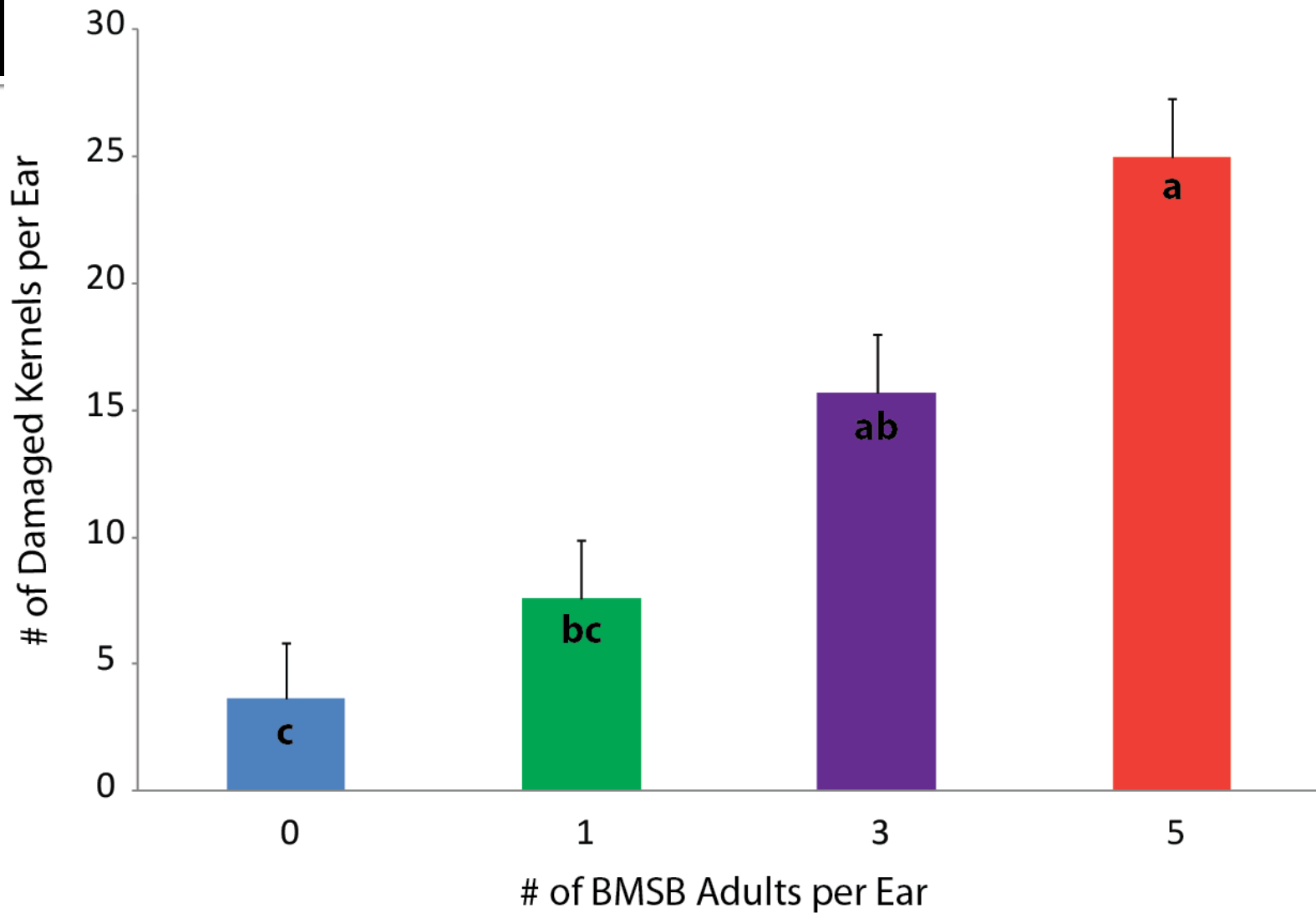
# 2011 Results



## Effect of BMSB Infestation Timing on Sweet Corn

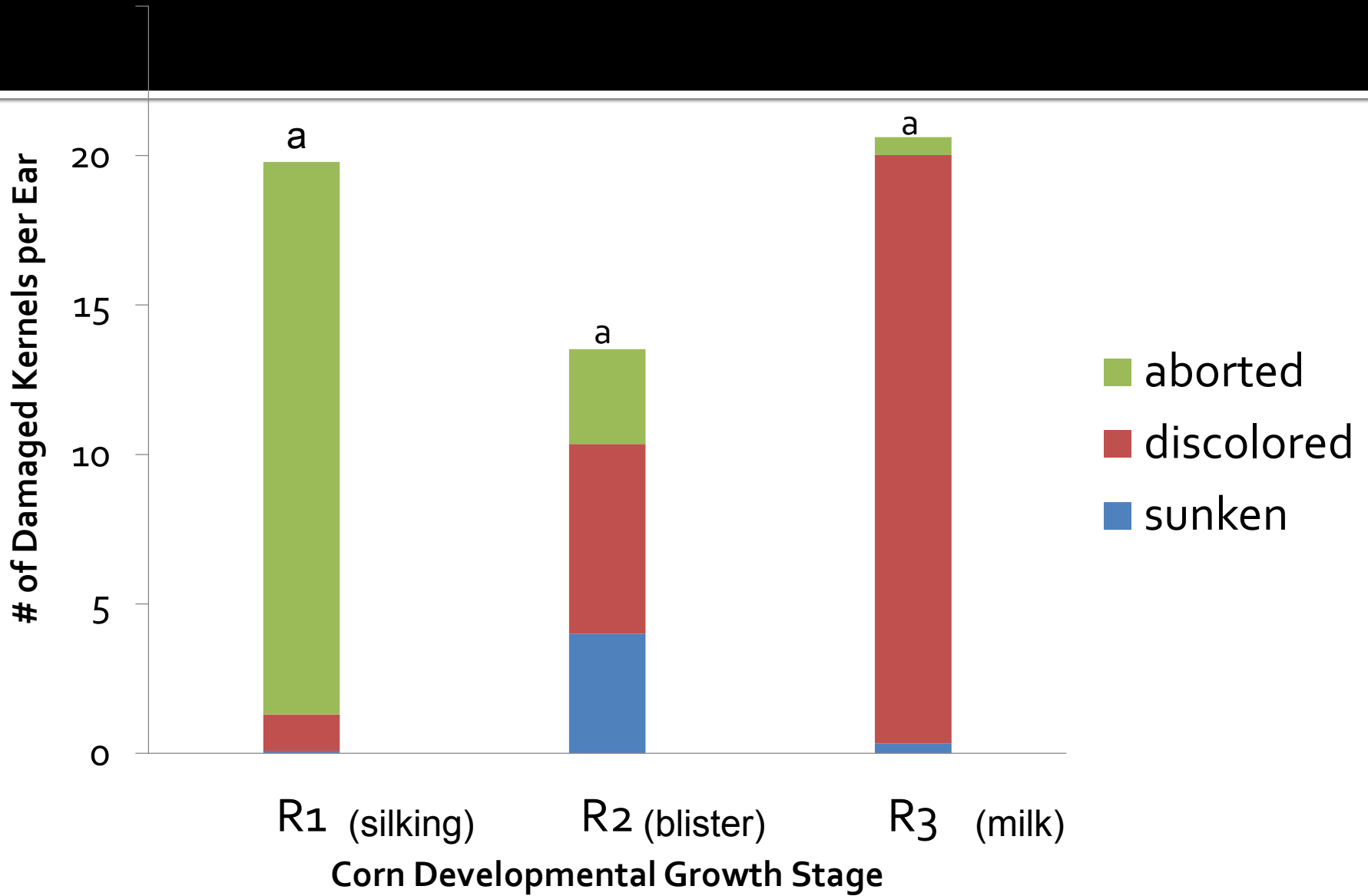


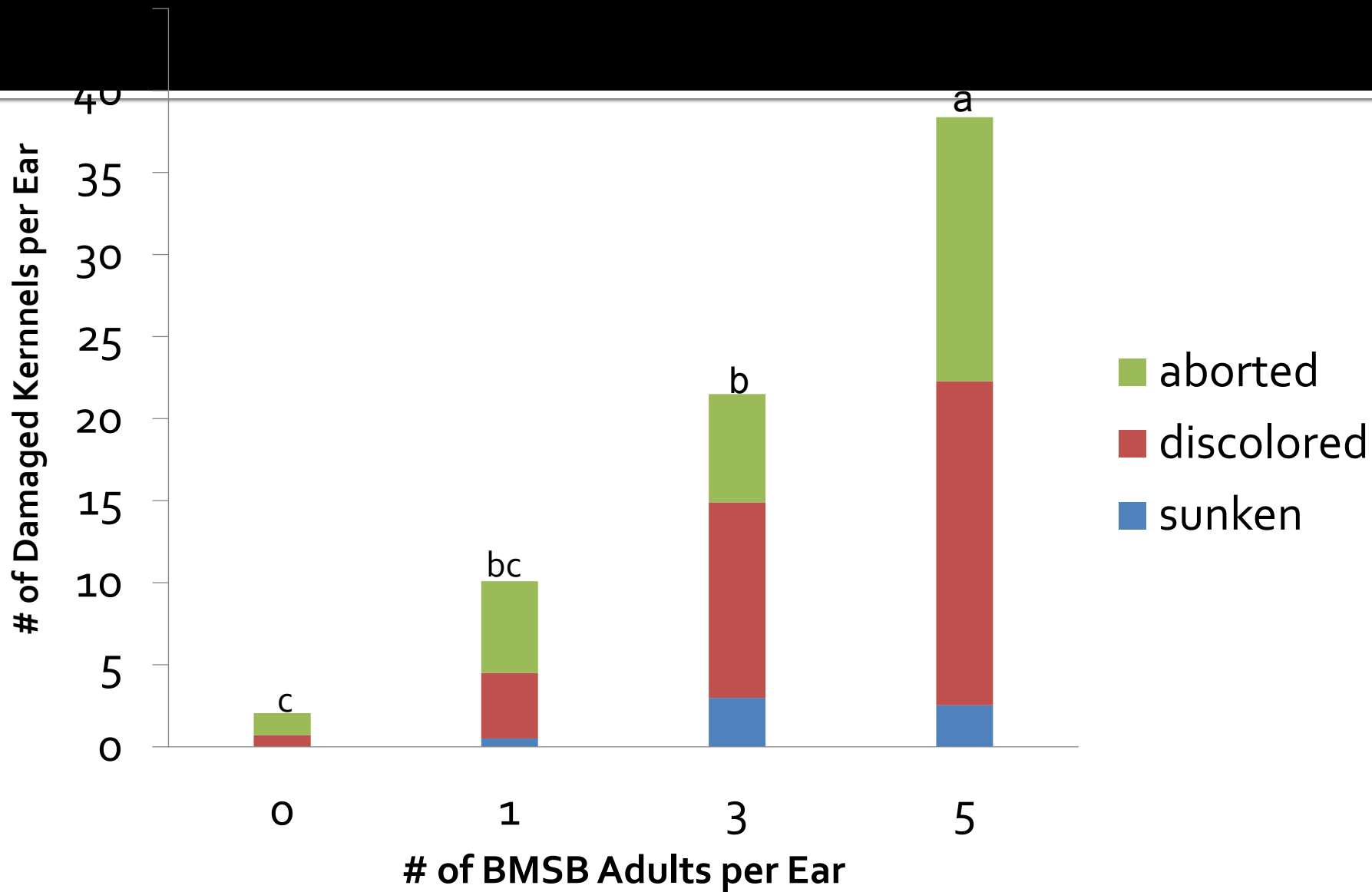
## Effect of BMSB Density on Sweet Corn



# 2012 Preliminary Results







B. Cissel, University of DE



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



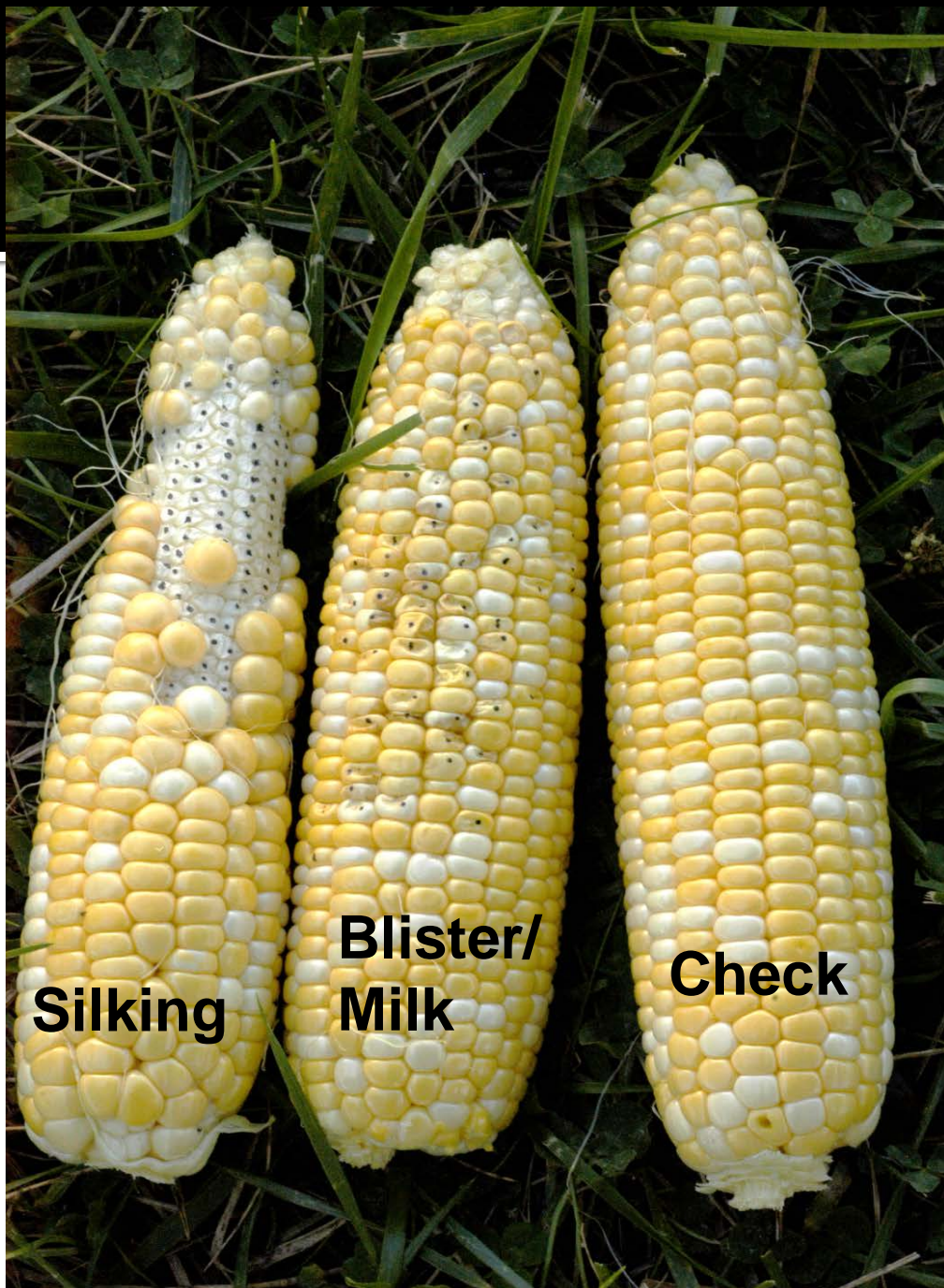
B. Cissel, University of DE



# 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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- **Statistical Consultation:** John Pesek