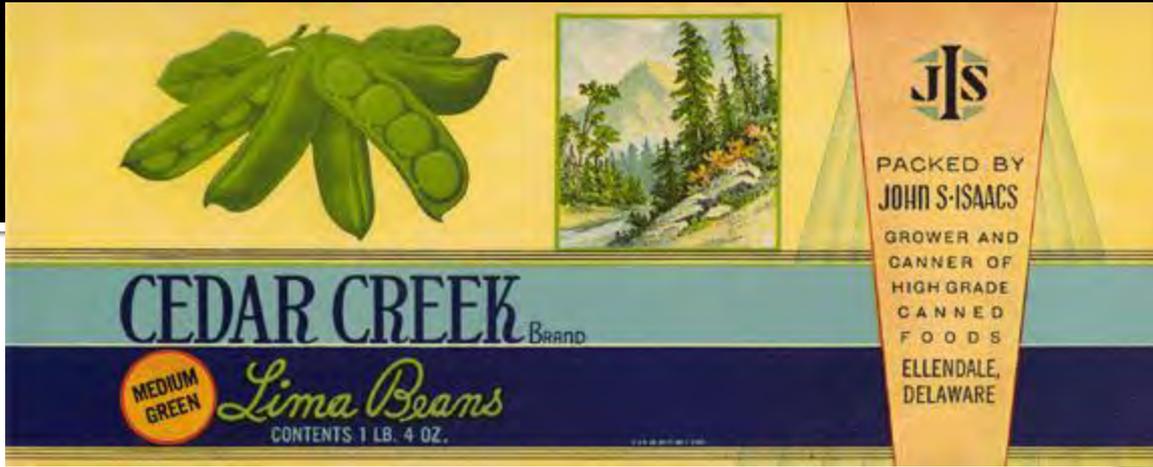


Brown Marmorated Stink Bug ***Damage in Lima Beans in Delaware***

J. Whalen and B. Cissel, Un of DE



Photos: Rutgers Un.



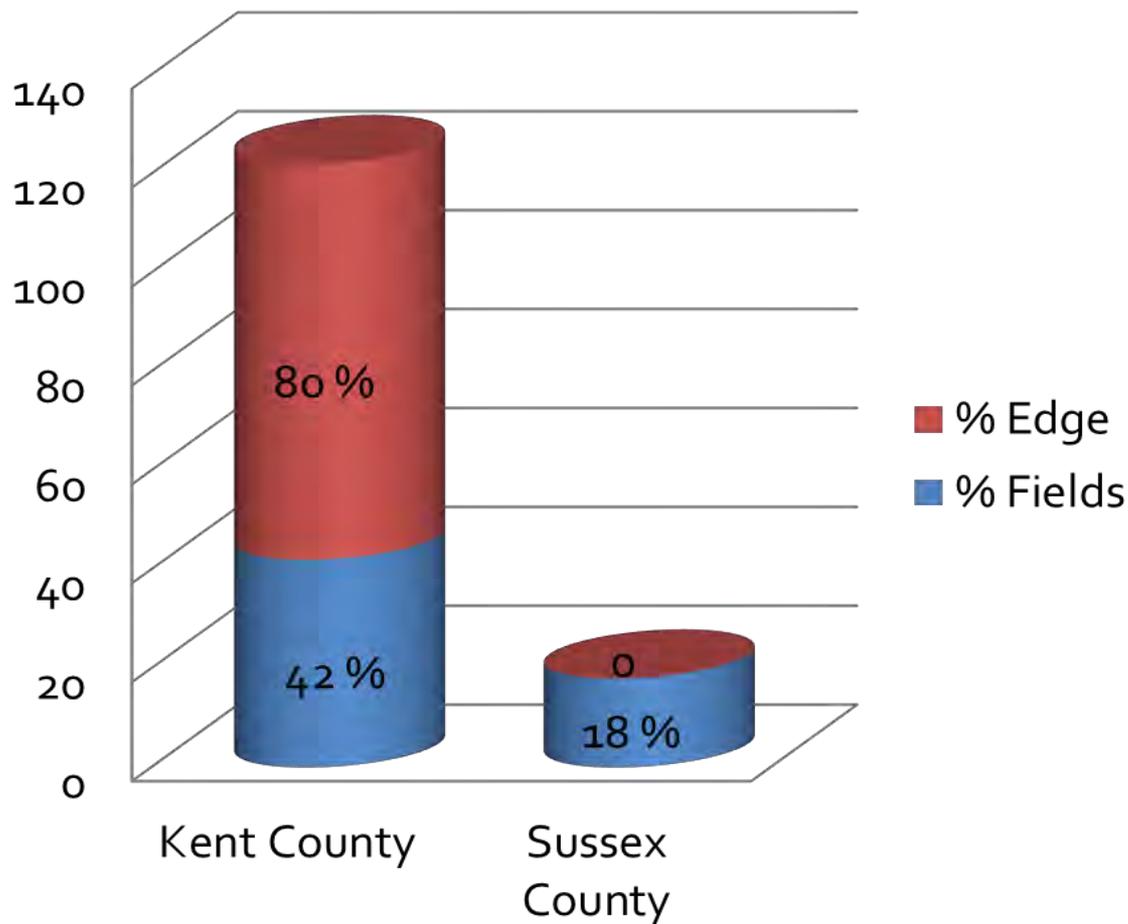


BMSB Damage to Lima Beans



Photos: B. Mulrooney, Un of DE

Lima Bean BMSB Survey – Commercial Fields 2012 and 2013



- Over 25 fields each year – mid July to early Sept.
- Edge versus interior
- Kent and Sussex
- More commercial acres in NCC; Pole Limas – added to 2014 survey

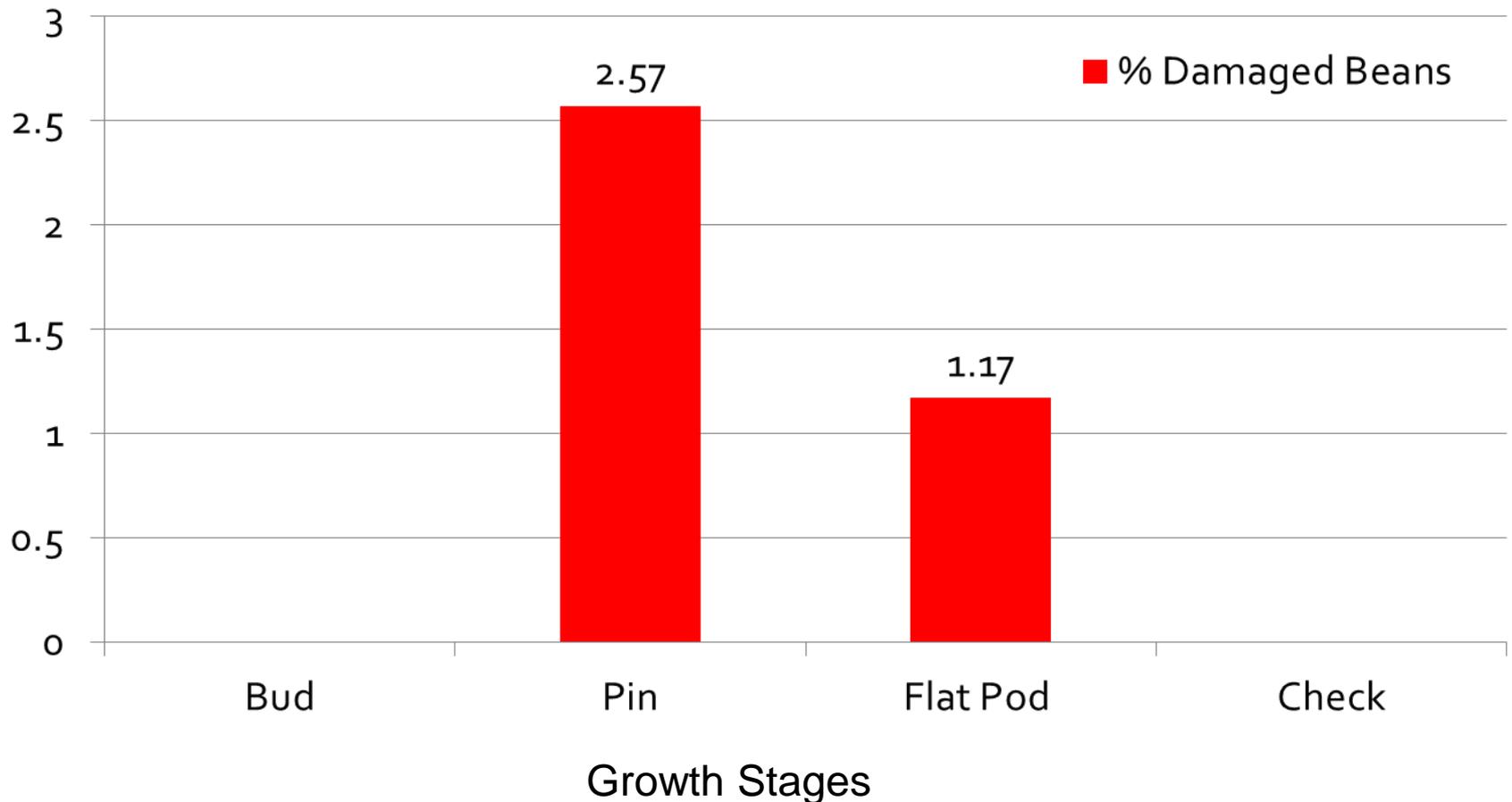
Lima Bean Cage Study Newark, DE – 2012

- Bags placed on plants – 3 plants/foot of row - first bud
- Four reps (bags) per growth stage: bud, pin and flat pod
- Four bags with no bugs
- One BMSB adult per 3 ft. of row
- Left bugs in bags for 7 days—checked for live bugs 3 times
- Harvest Data : puncture wounds on pods and damaged beans



Lima Bean Cage Study – 2012

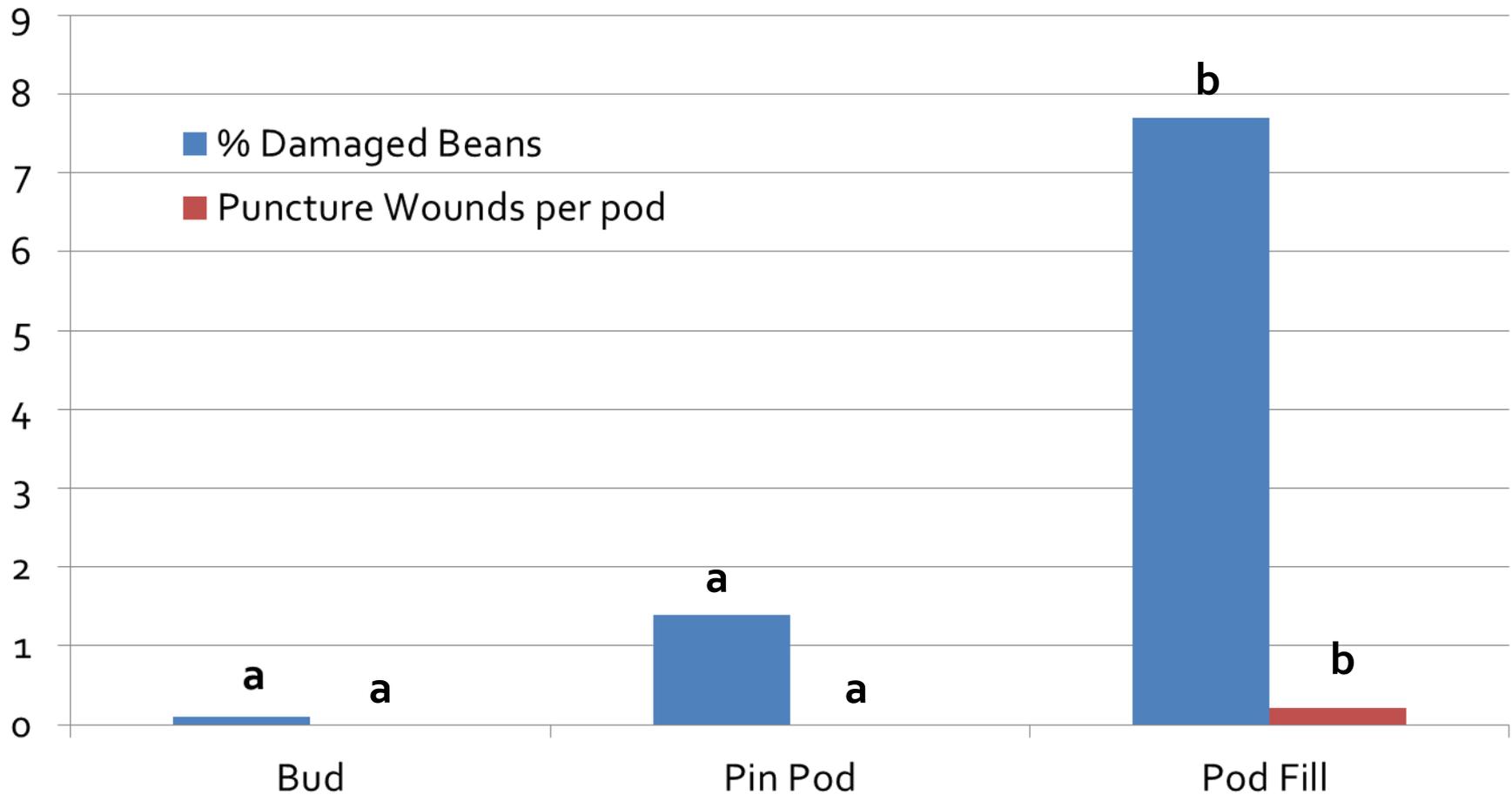
Newark, DE - % Damaged Beans



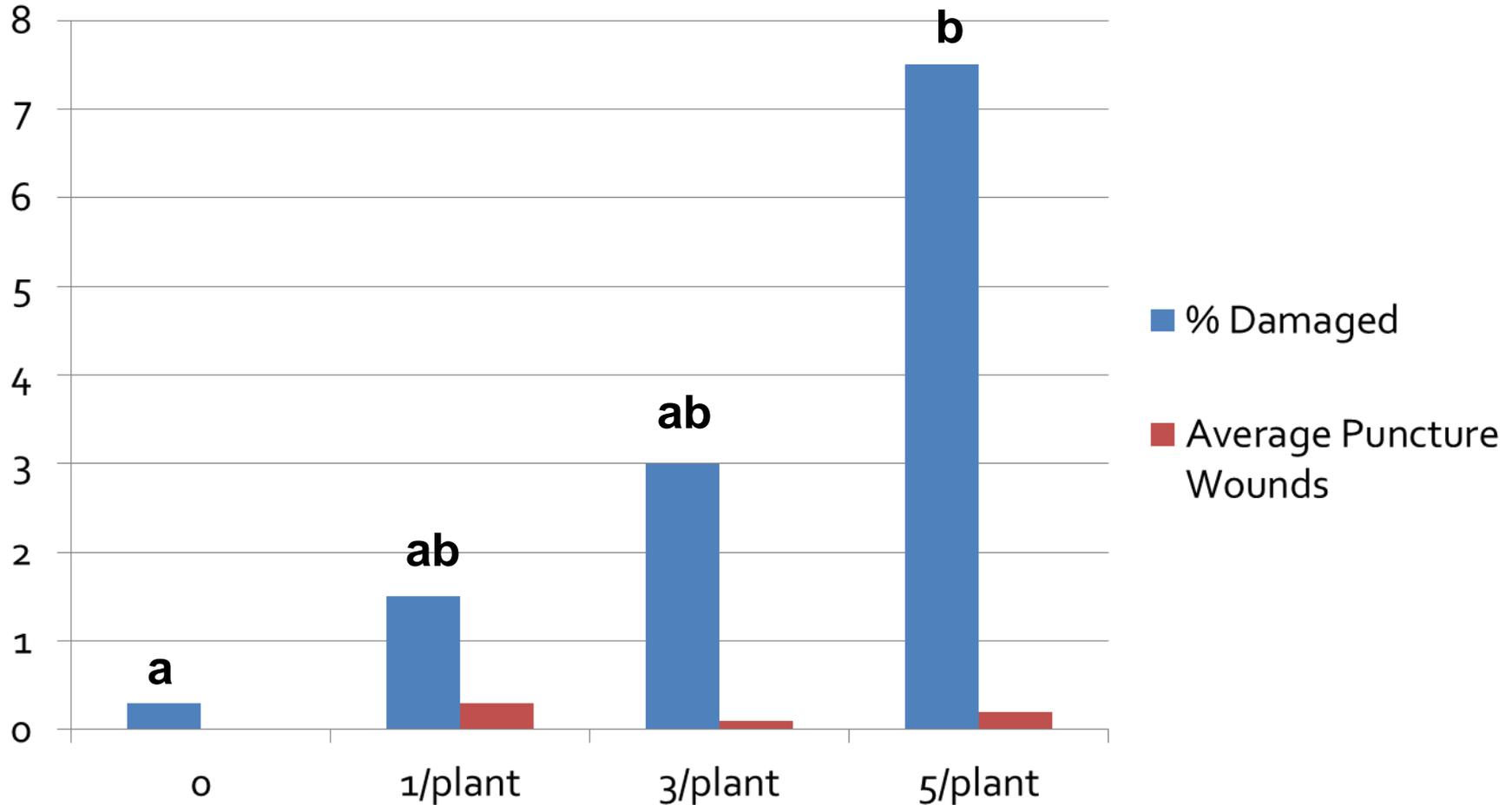
Lima Bean Cage Study Newark, DE – 2013

- Bags placed on individual plants pre-bud stage and remained on plants for the entire experiment
- Eight reps per growth stage: bud, pin and pod fill
- Four infestation Densities : 0,1,3 and 5 bugs per plant
- Left bugs in bags for 7 days– at 7 days removed and recorded as alive, dead or missing
- Harvest Data : puncture wounds per pod and % damaged beans

BMSB Damage – Infestation Timing



% Damage Beans – Infestation Level



Summary

- No Significant Differences for number of pods or number of beans per plant – no pod and seed abortion ?
- No Significant Timing x Density Interaction
- Highest percentage damage during pod fill – both % damaged beans and puncture wounds per bean -- similar to native stink bugs
- 5 stink bugs per plant – higher percentage of damaged beans