Sugarcane Borer Pheromone Components: Revisited

Abner M. Hammond Adjunct Professor LSU Ag Center, Entomology



Initial Field Trials, Burns Point, Paterson, LA

- Three different female holding cages were tested on August 1, 2013.
- A wire cage proved the most effective, so these cages were used in holding virgin females.

Trap Results	Total Males Trapped
Virgin Females Wire Cages	26
Virgin Females Other Trap Types	6

A Pheromone Based Trapping System

- Previous research on SCB pheromone
- Published pheromone gland components: 9Z, 11E-hexadecadienal 2.5 ng 9E, 11E-hexadecadienal 1.5 ng 9E, 11Z-hexadecadienal 0.5 ng 9Z, 11Z-hexadecadienal 0.6 ng (11Z)-hexadec-11-enal 0.8 ng hexadecanal 0.4 ng

Field Trials on September 13,2013 New Roads, LA

Treatments	(Z,E)-9,11-16 ald. (mg/dispenser)	(Z)-11-16 ald. (mg/dispenser)
Pure (Z,E)-9,11-16 ald.	0.010	0
Pure (Z)-11-16 ald.	0	0.010
9:1	0.090	0.010
6:1	0.084	0.014
3:1	0.075	0.025
Blank dispenser	NA	
Virgin Females (2)	NA	

*Lures provided by Pherobank Wageningen, Netherlands

Results

	Total Males Trapped
Virgin Females	170
Test Samples	0

*Tests were conducted for a total of 27 nights, August 1-September 13, 2013



Future Research

- Investigate actual odors (volatiles) released by calling female SCB.
- Results compared to six known compounds identified from gland extracts.
- Efforts will continue to acquire six known compounds reported in the literature. Field test when available.

Research supported by the American Sugarcane League and LSU Ag Center

Thanks for your support!



