

Resistant Bollworms: Insecticides and New Traits





Bollworm Resistance to Bt – David Kerns

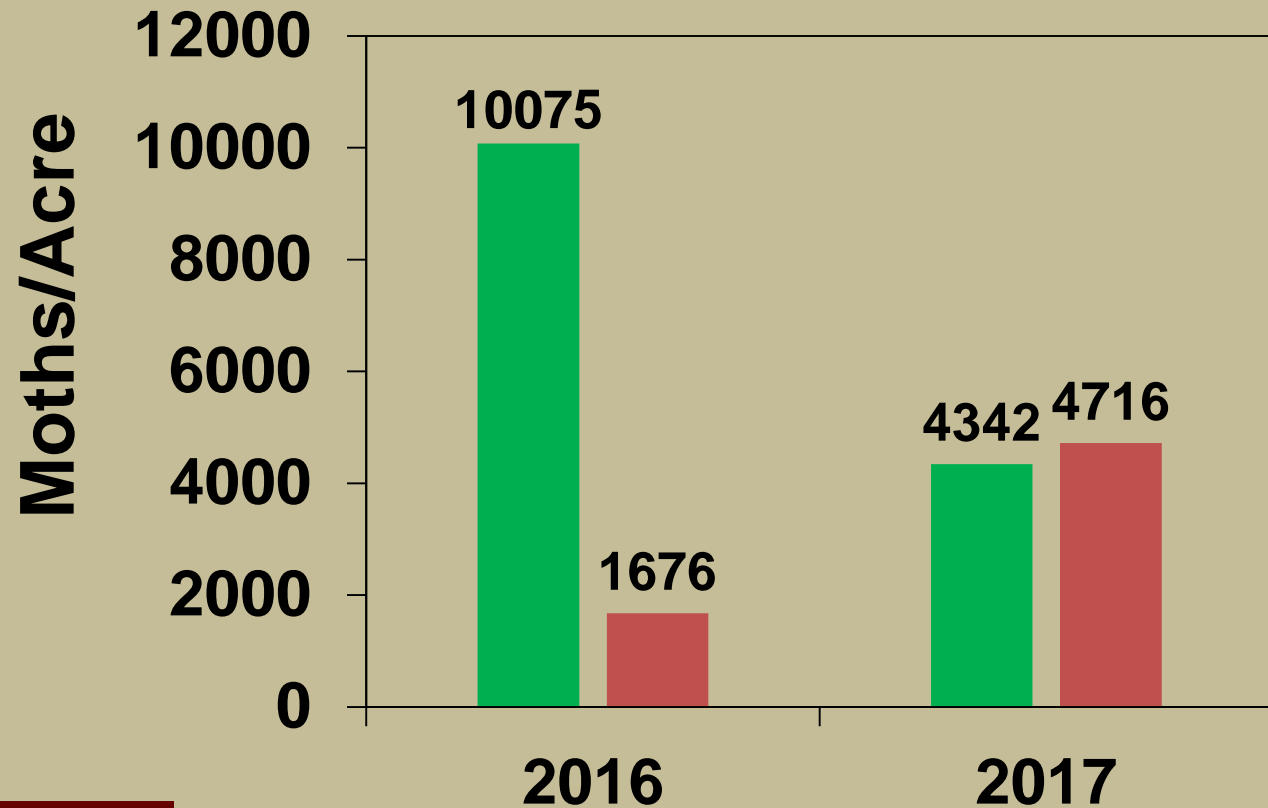
Cry1Ac	2016	2017
Reference	1.0	1.0
1	5.1	68.8 *
2	27.5	> 109.8 *
3	5.7	> 109.8 *
4	9.5	> 109.8 *
5	48.3	> 109.8 *
6	1.6	> 109.8 *
7		30.5 *
8		> 109.8 *
9		> 109.8 *
10		> 109.8 *
11		62.0 *
12		> 109.8 *

Cry2Ab	2016	2017
Reference	1.0	1.0
1	4.4	> 50.0 *
2	35.7	> 50.0 *
3	133.3	> 50.0 *
4	4.0	> 50.0 *
5	8.6	> 50.0 *
6	1.0	46.1 *
7		6.1
8		11.4 *
9		3.3
10		> 50.0 *
11		30.9 *
12		1.0

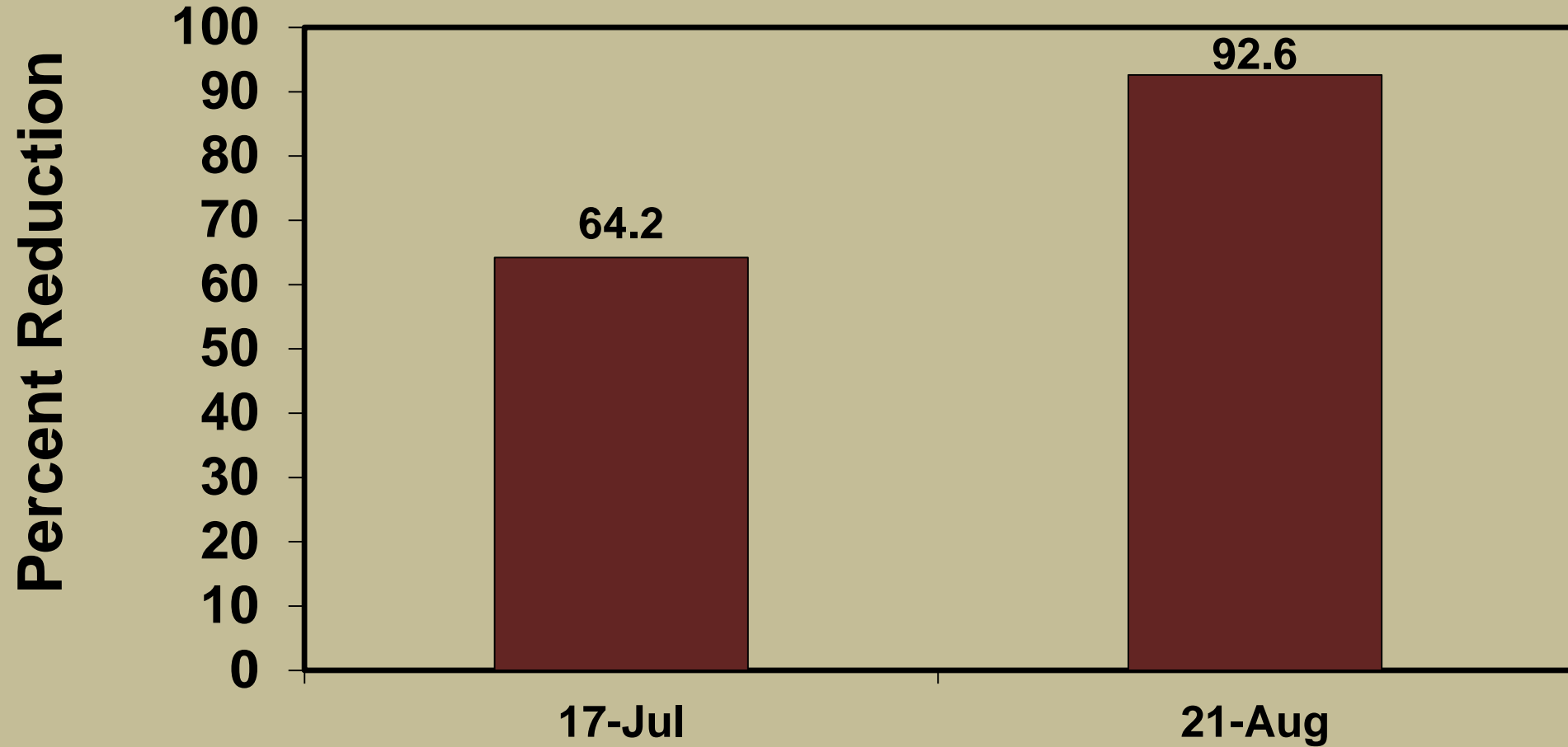
Bollworm Emergence from Bt Corn

Tyler Towles, Graduate Student

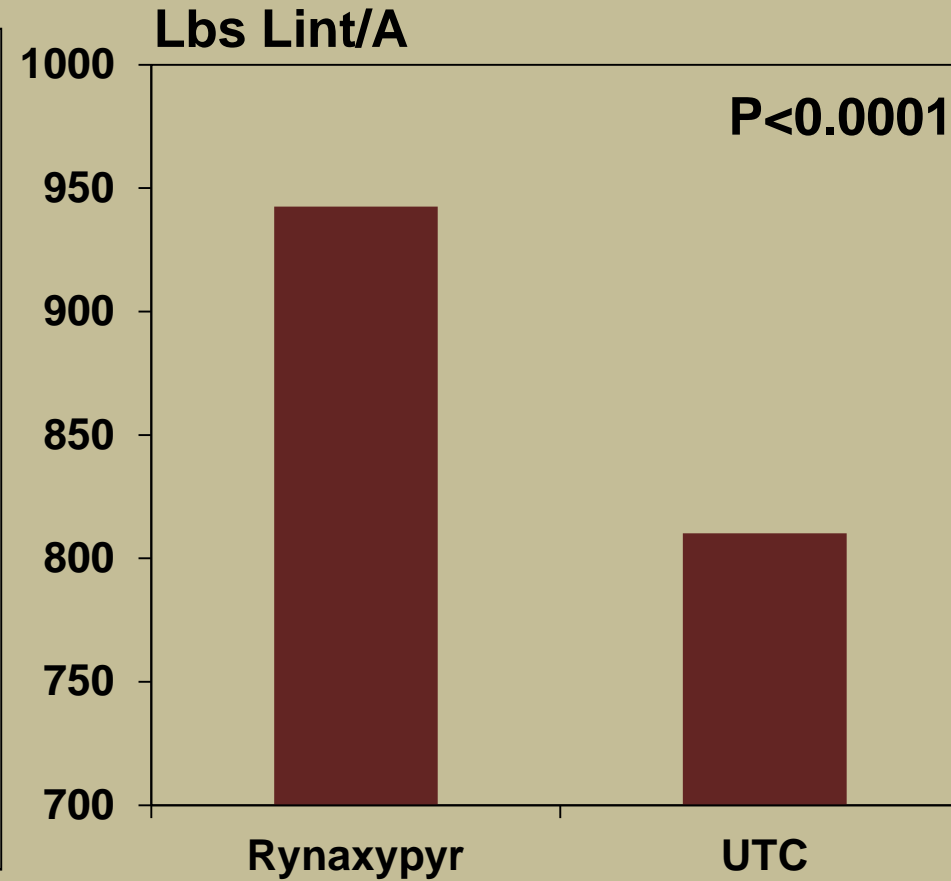
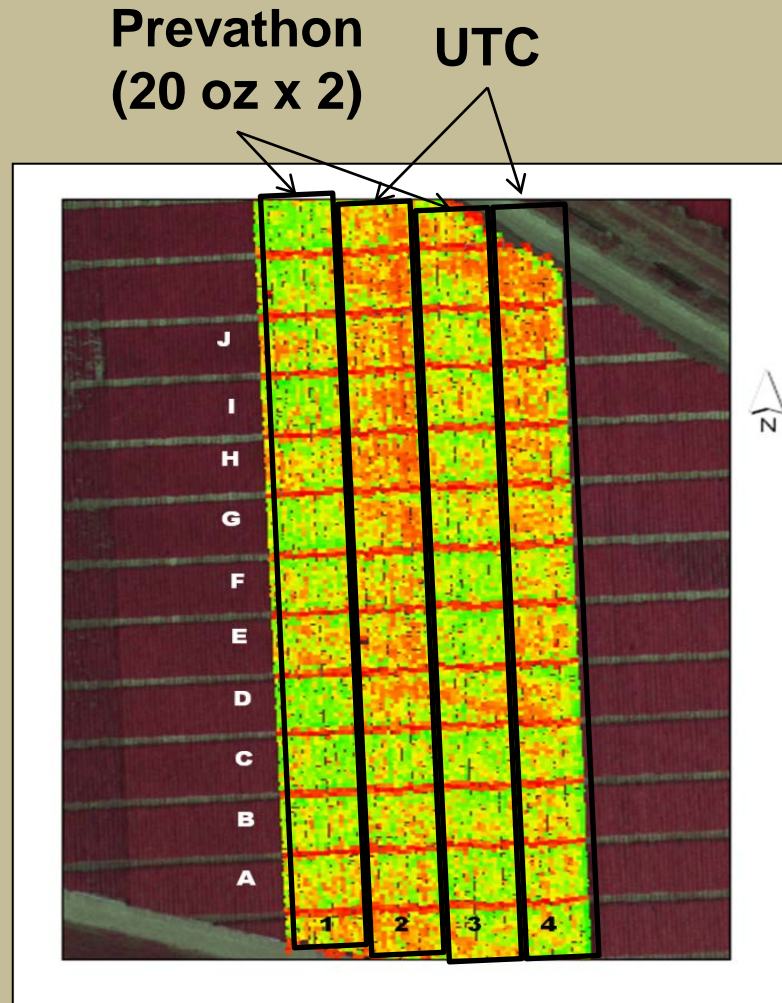
■ RR ■ VT2Pro



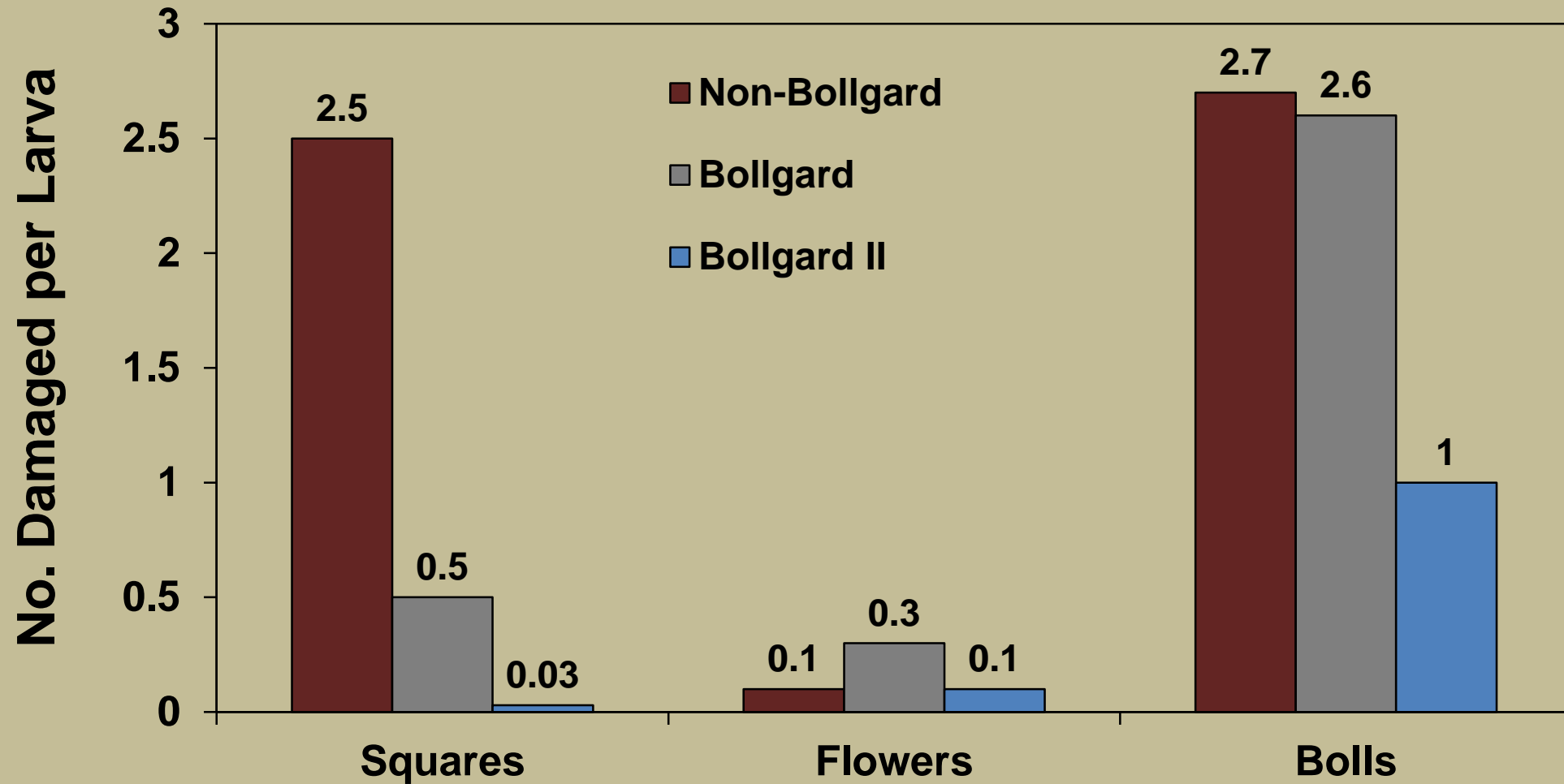
Reduction in Fruit Damage on Bollgard II Cotton



Yield Map of Bollgard II Cotton - 2010



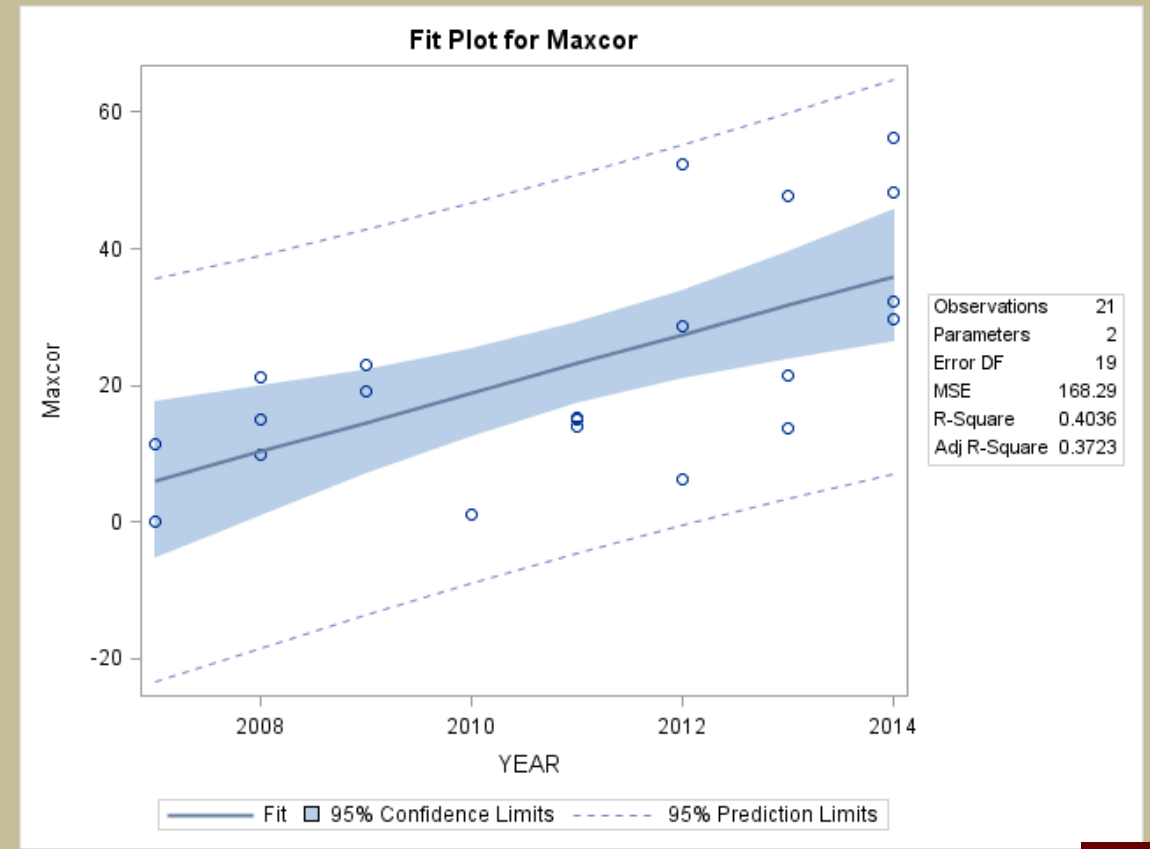
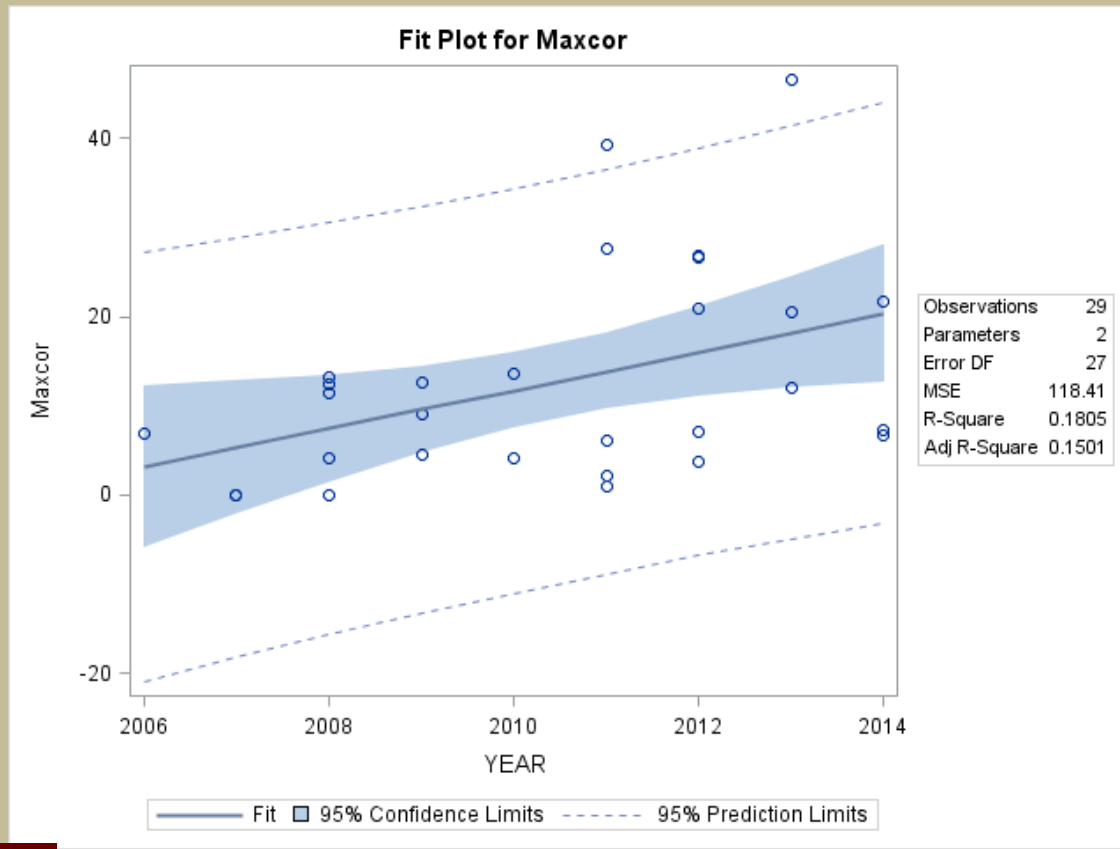
Bollworm Damaged Fruiting Forms – 2000



Percent Square Damage Over Time

Bollgard II (Slope = 2.2)
P=0.02

Widestrike (Slope = 4.3)
P<0.01



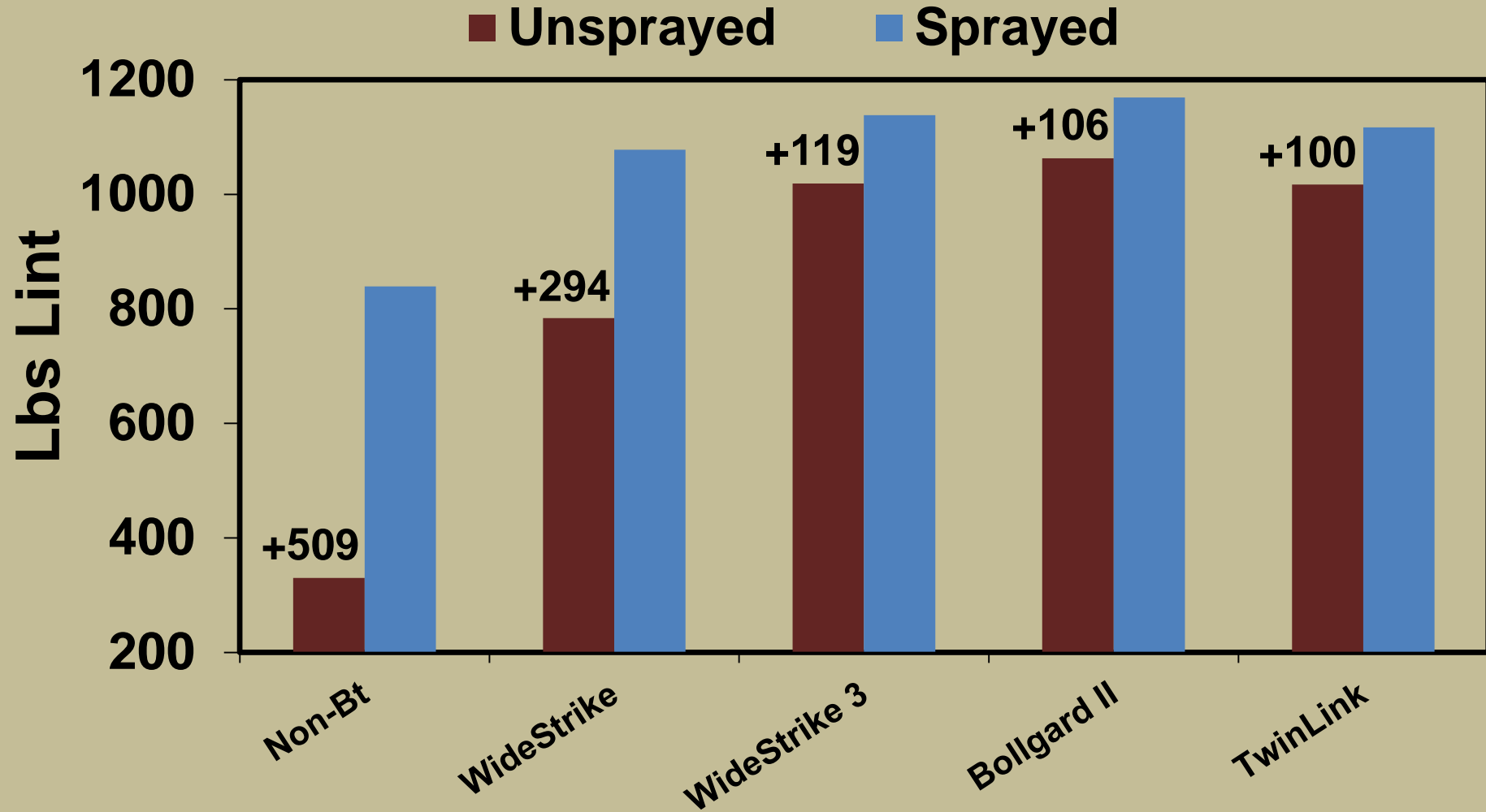
Corrected for Damage in Non-Bt



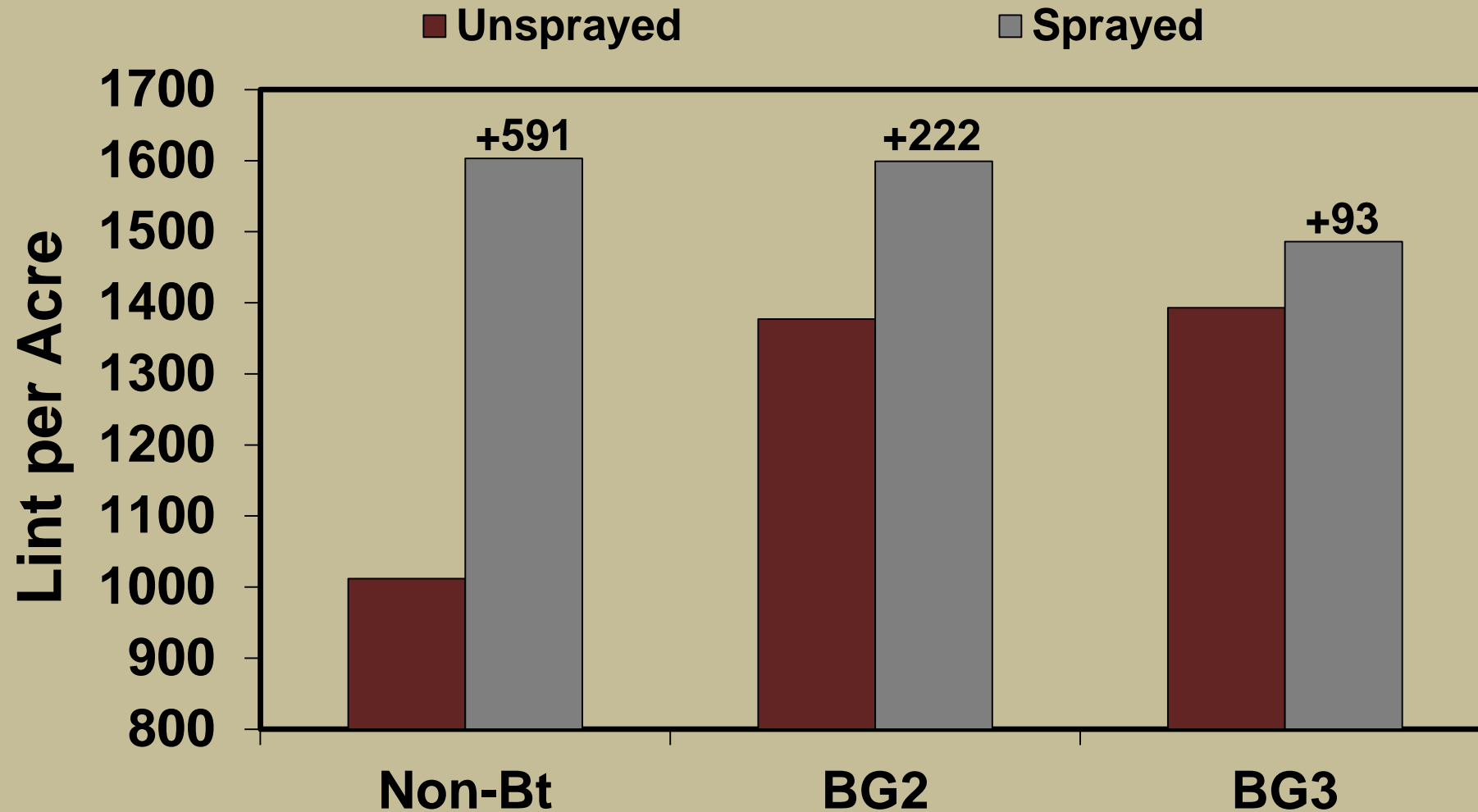
Unsprayed

Sprayed

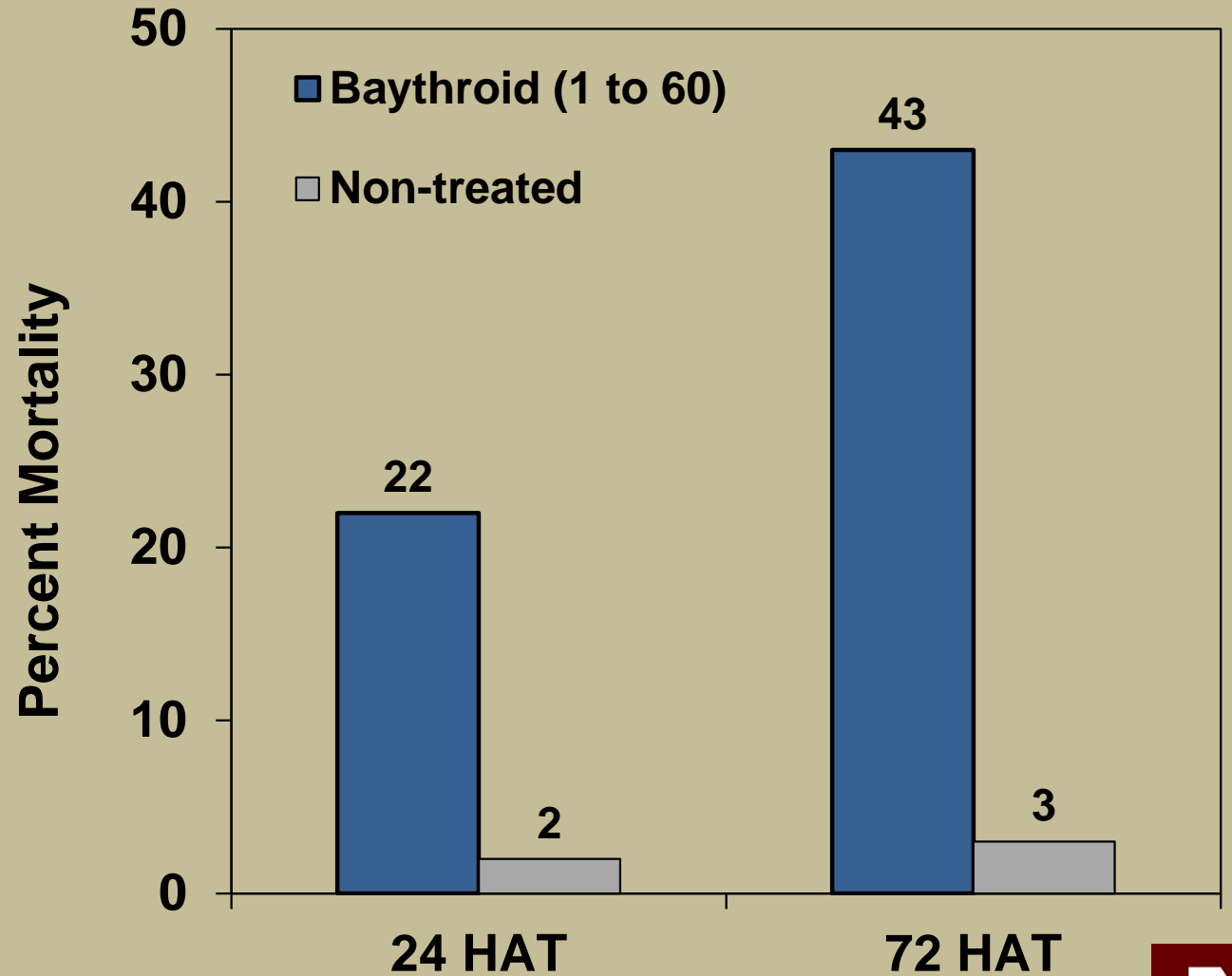
Mid-South Bt Overspray - Mississippi



Evaluation of Bollgard 3 Cotton Mississippi – Yield

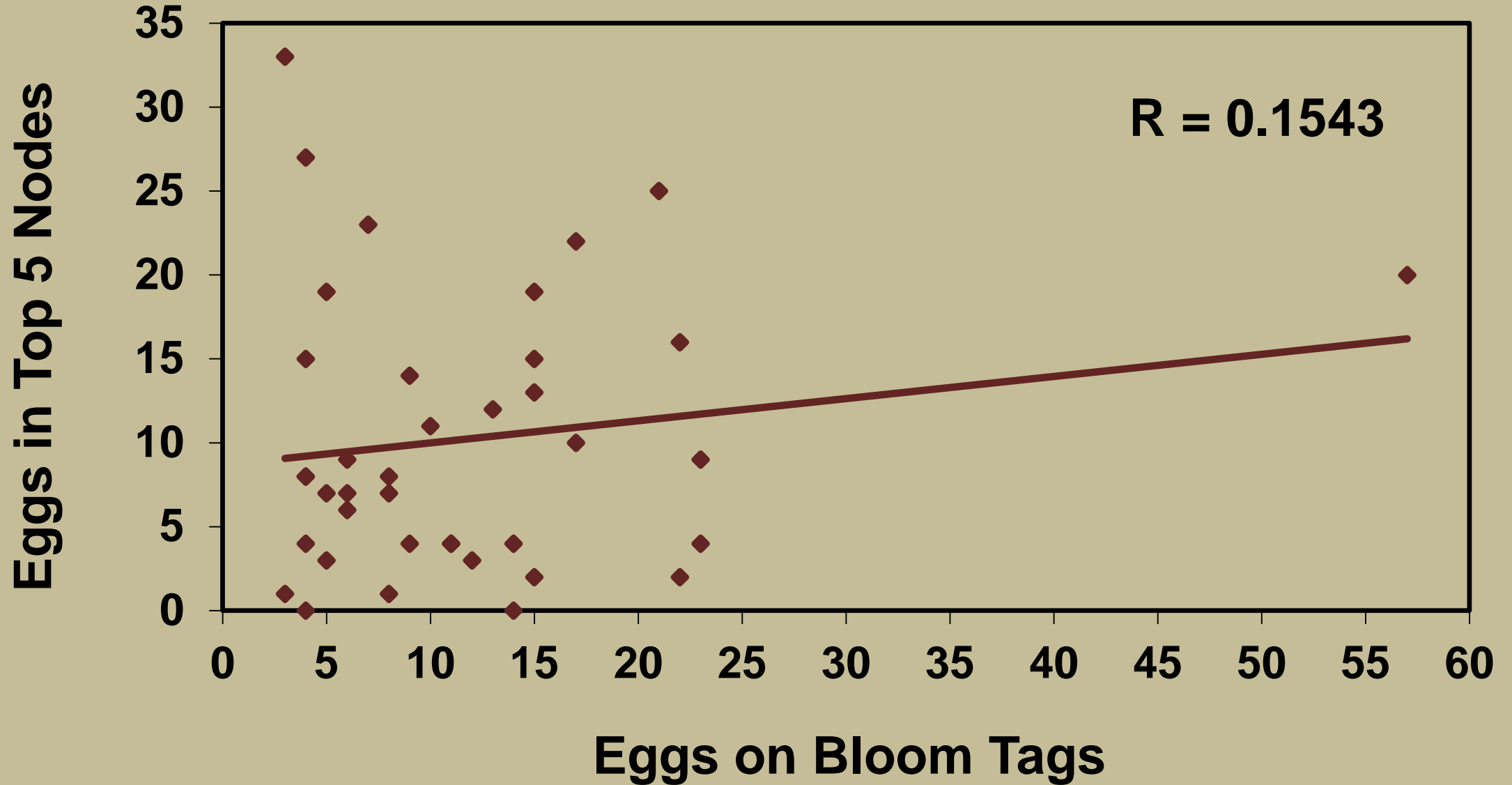


Pyrethroid Efficacy on Bt Cotton - 2000

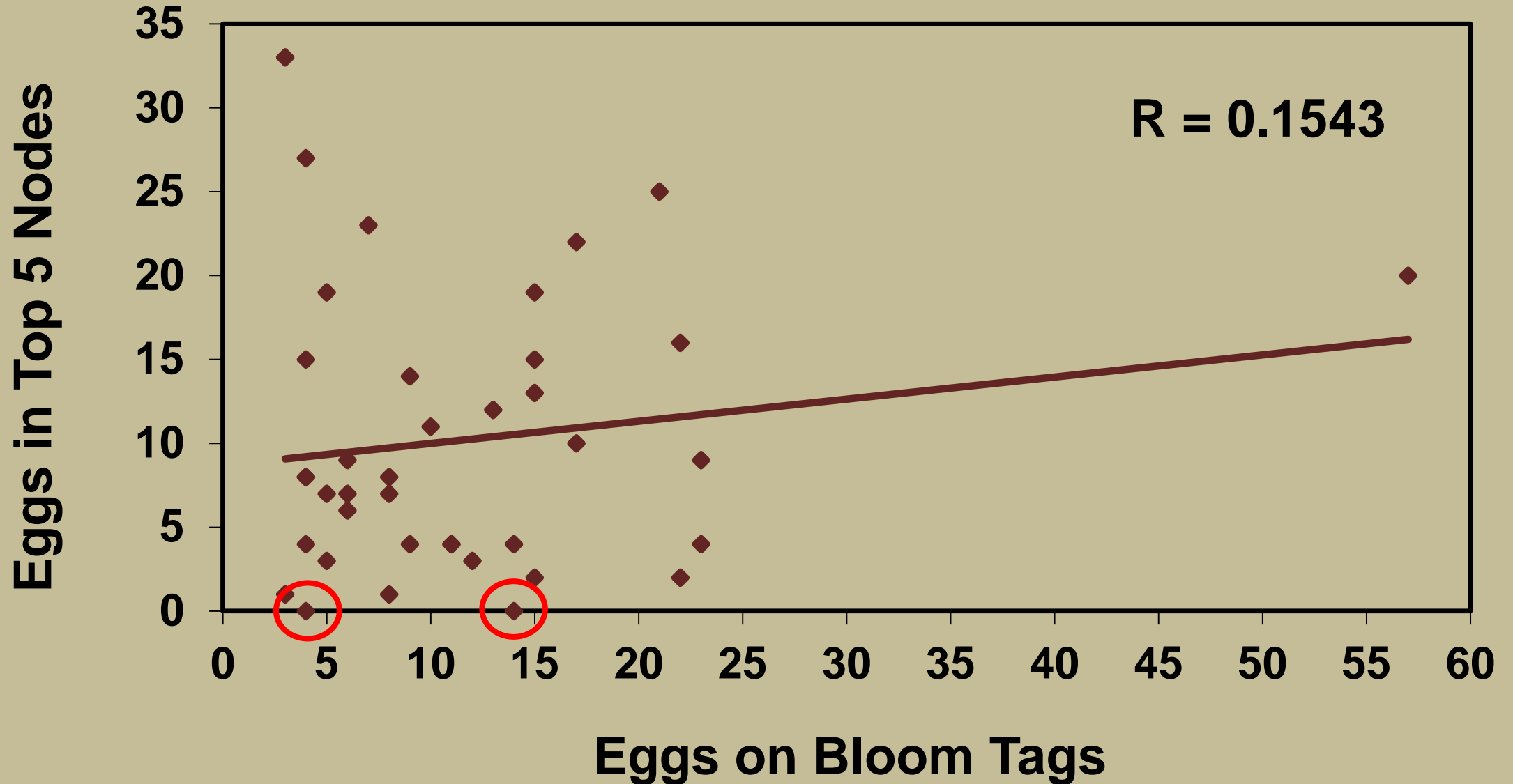




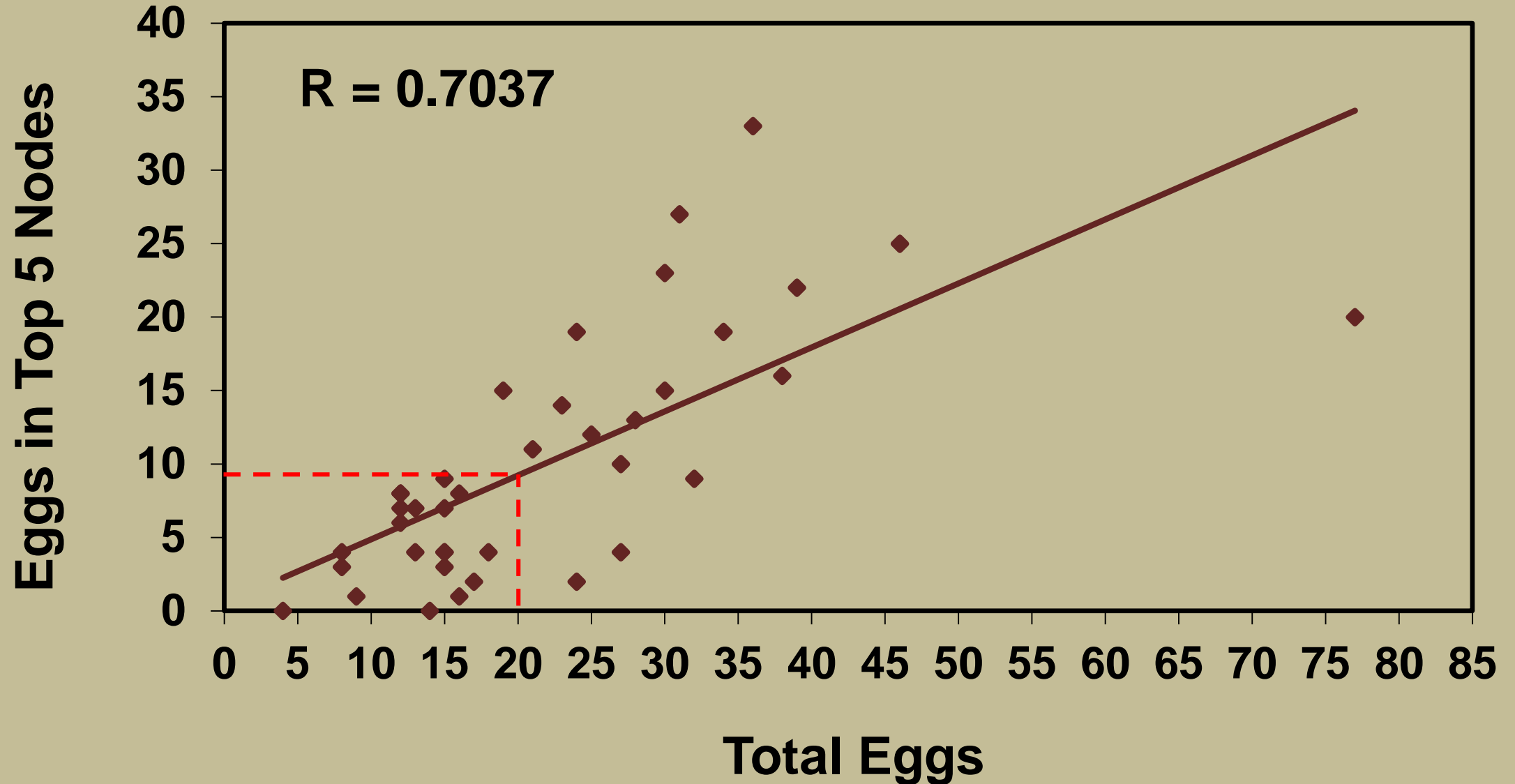
Location of Bollworm Eggs in Cotton



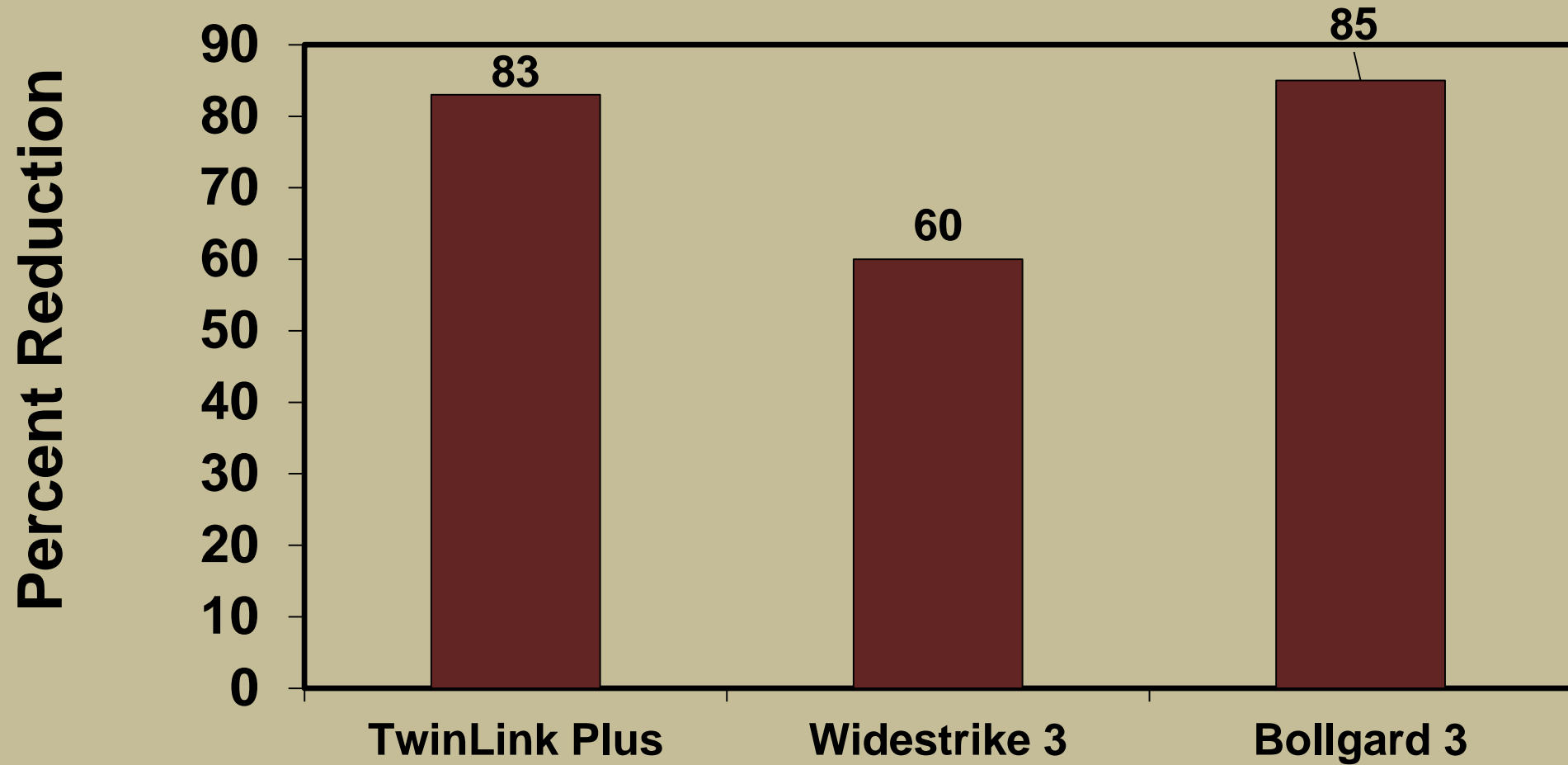
Location of Bollworm Eggs in Cotton



Location of Bollworm Eggs in Cotton

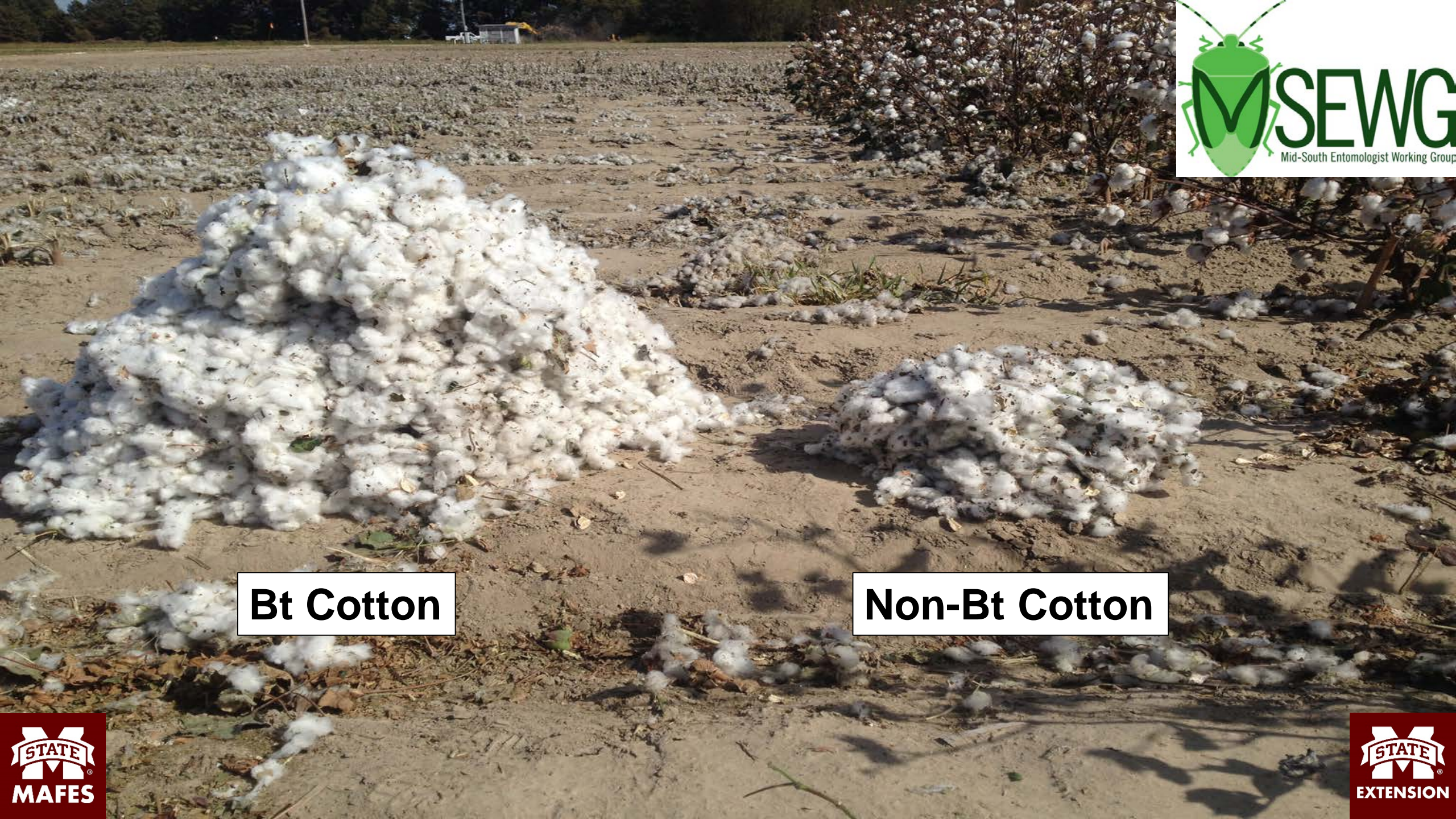


Damage Protection Relative to Non-Bt



Widestrike 3





Bt Cotton

Non-Bt Cotton