



Sugarcane Aphid: Insecticides and Best Management Practices

Sugarcane Aphid Update
Weslaco, TX
April 12, 2016

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TEXAS A&M GRILIFE EXTENSION

OUTLINE:

- Occurrence
- Adjuvants
- Insecticide Efficacy
- BMP
 - Thresholds
 - Decision Making Tool







2015 Sugarcane Aphid, Melanaphis sacchari, Occurrence on Sorghum and Johnsongrass

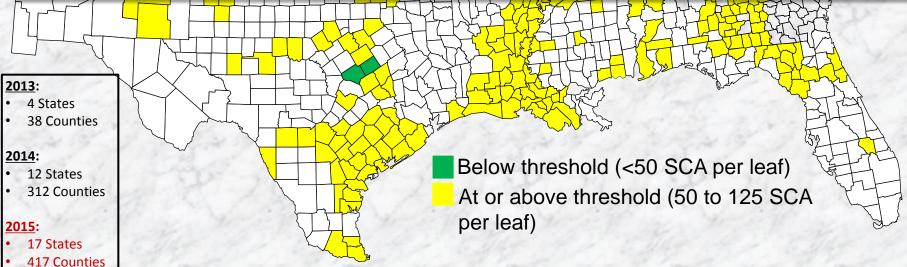
September 30, 2015





At Risk in the U.S.A.:

- 97% (7,405,000 acres) of the sorghum acres
- 98% (560,253,000 bushels) of the total sorghum production

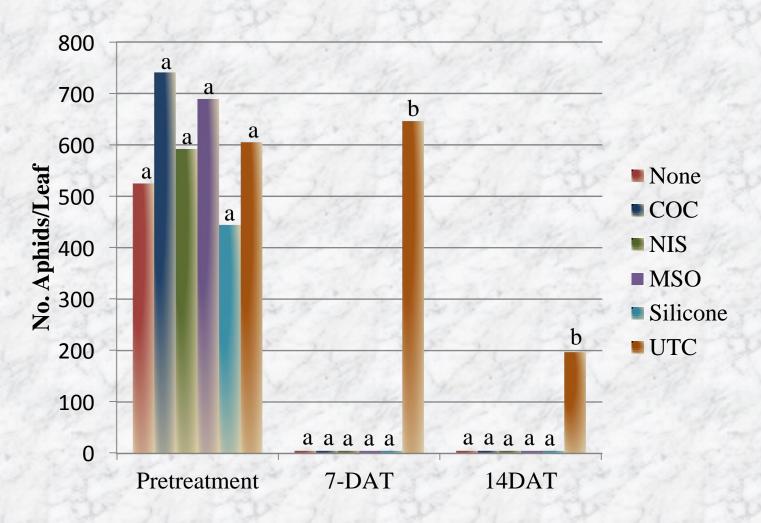




Sugarcane Aphid Adjuvant Trial - <u>TRANSFORM</u> Sinton, Texas 2015



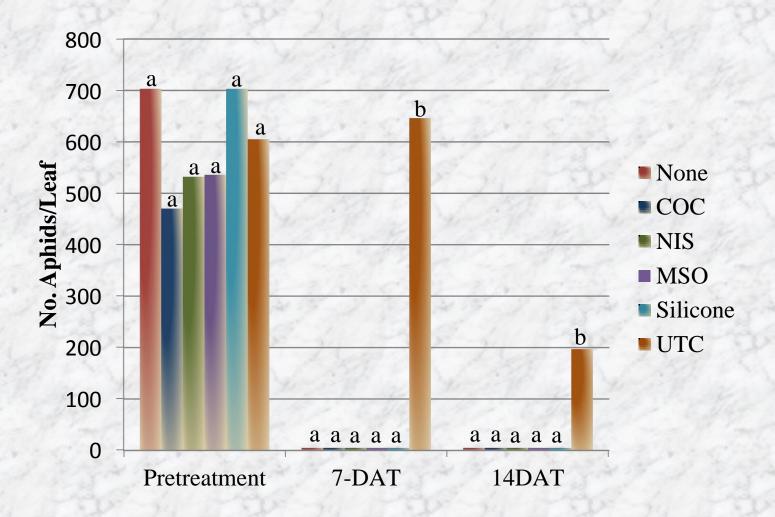
Cooperator: Charles Ring





Sugarcane Aphid Adjuvant Trial - <u>SIVANTO</u> Sinton, Texas 2015 Cooperator: Charles Ring





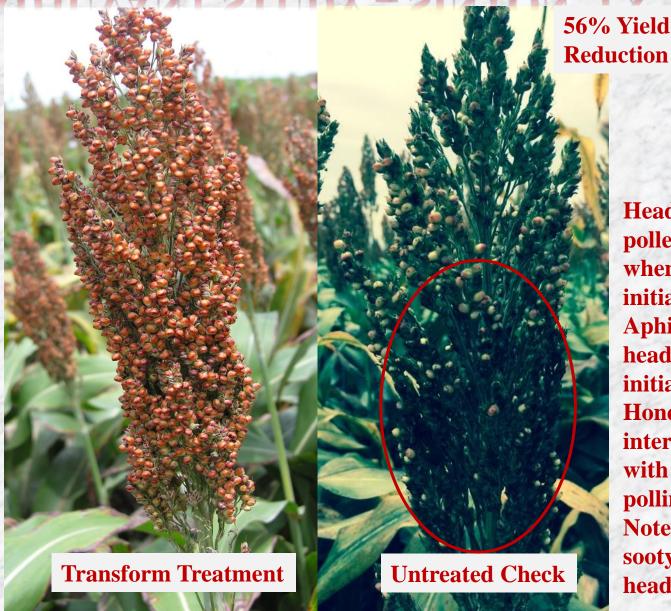


SCA INJURY TO SORGHUM HEAD



ADJUVANT STUDY - SINTON, TX

Aphids in Transform treatment controlled. No injury to head.



Heads 50% pollen shed when test initiated. **Aphids in** head when test initiated. Honeydew interfered with pollination. **Note heavy** sooty mold on head.

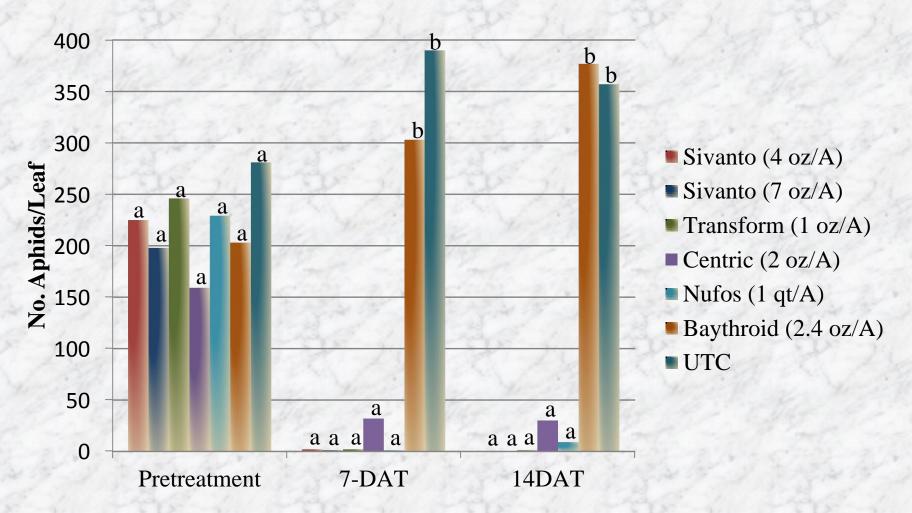
Insecticide Efficacy



Sugarcane Aphid Insecticide Efficacy Trial Sinton, Texas 2015



Cooperator: Charles Ring

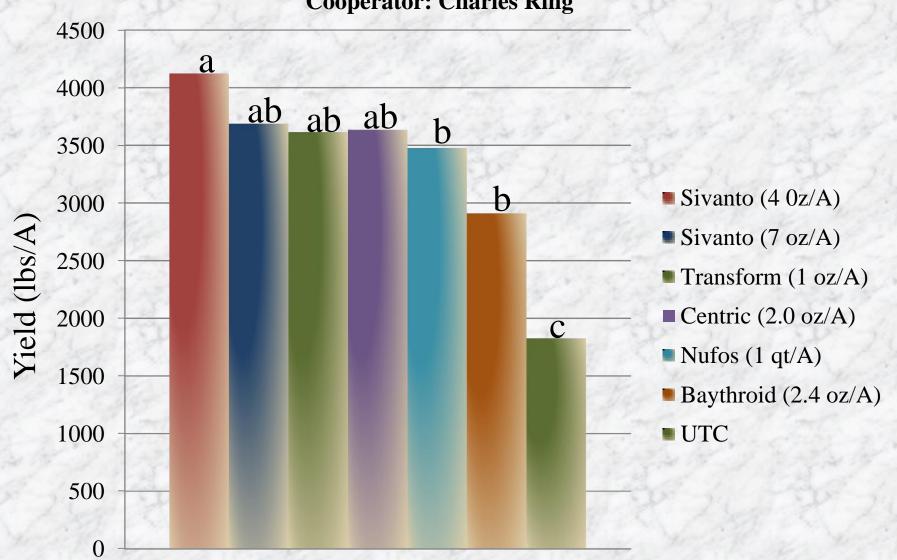




Sugarcane Aphid Insecticide Efficacy Trial Harvest - Yield



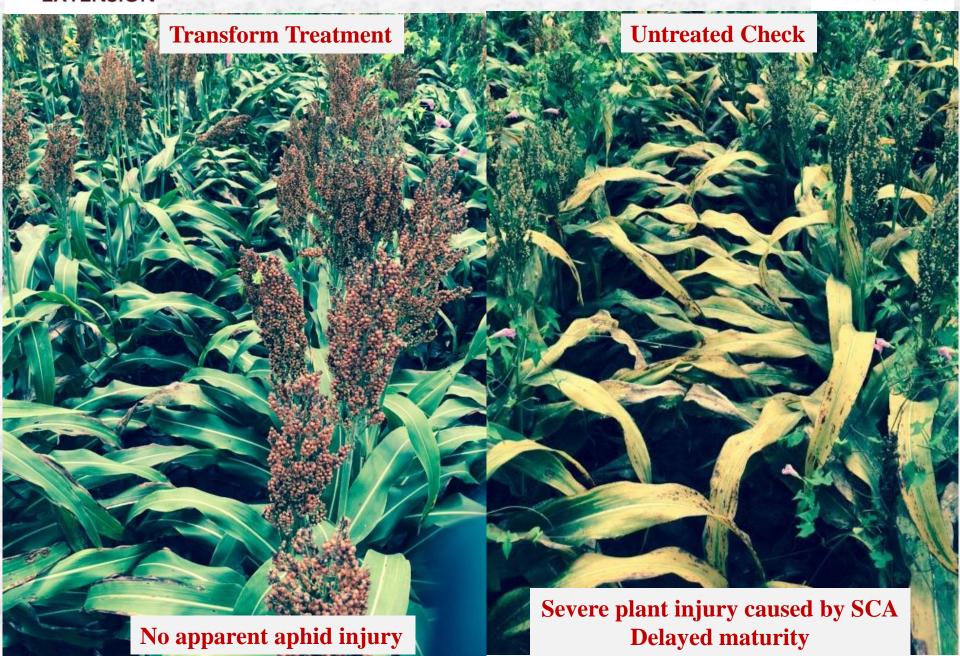
Sinton, Texas 2015 Cooperator: Charles Ring





Don't become complacent in 2016!

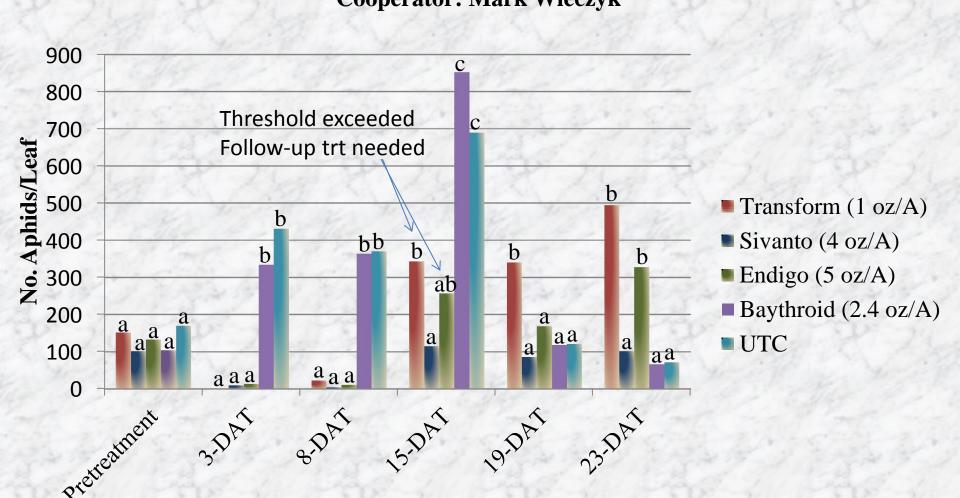






Sugarcane Aphid Insecticide Efficacy Trial Rosenberg, Texas 2015 Average No. of Aphids per Leaf Cooperator: Mark Wleczyk

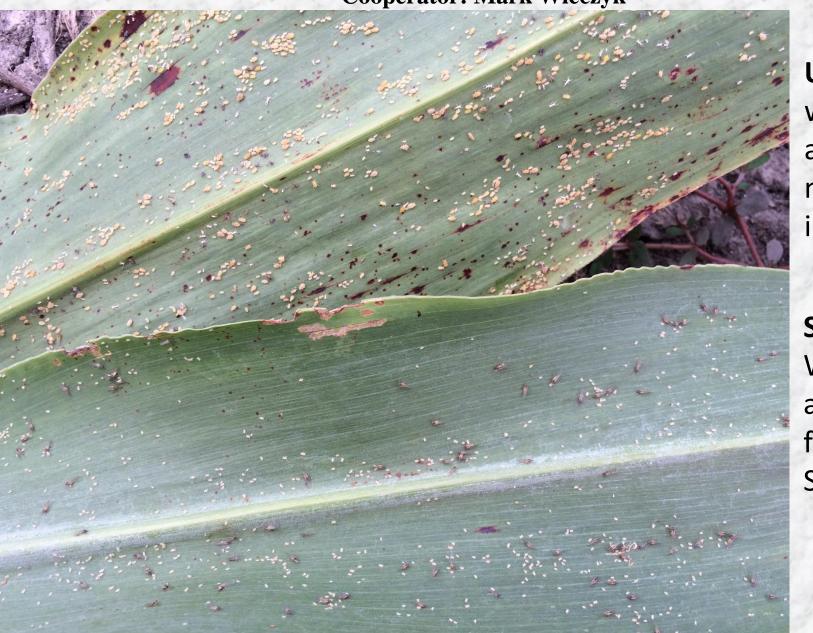






Sugarcane Aphid Insecticide Efficacy Trial Rosenberg, Texas 2015 Cooperator: Mark Wleczyk





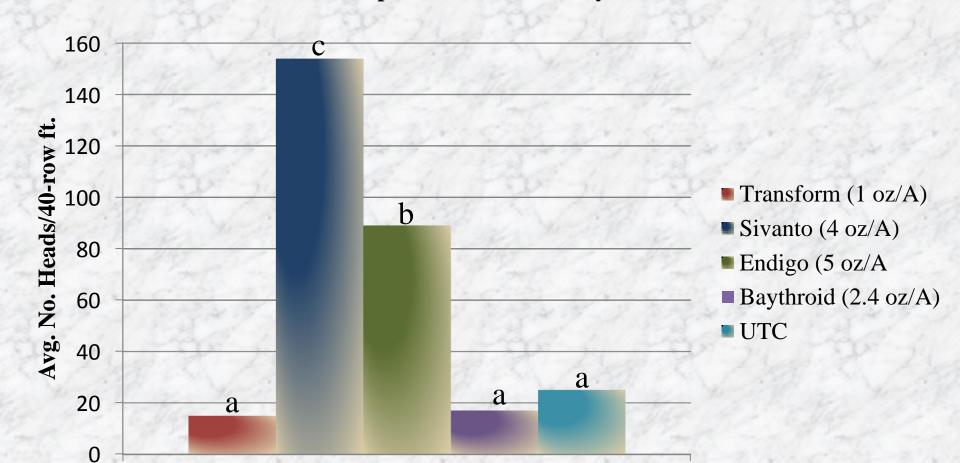
UTC – nowingedaphids –mix ofinstars

Sivanto – Winged aphids – first instar SCA



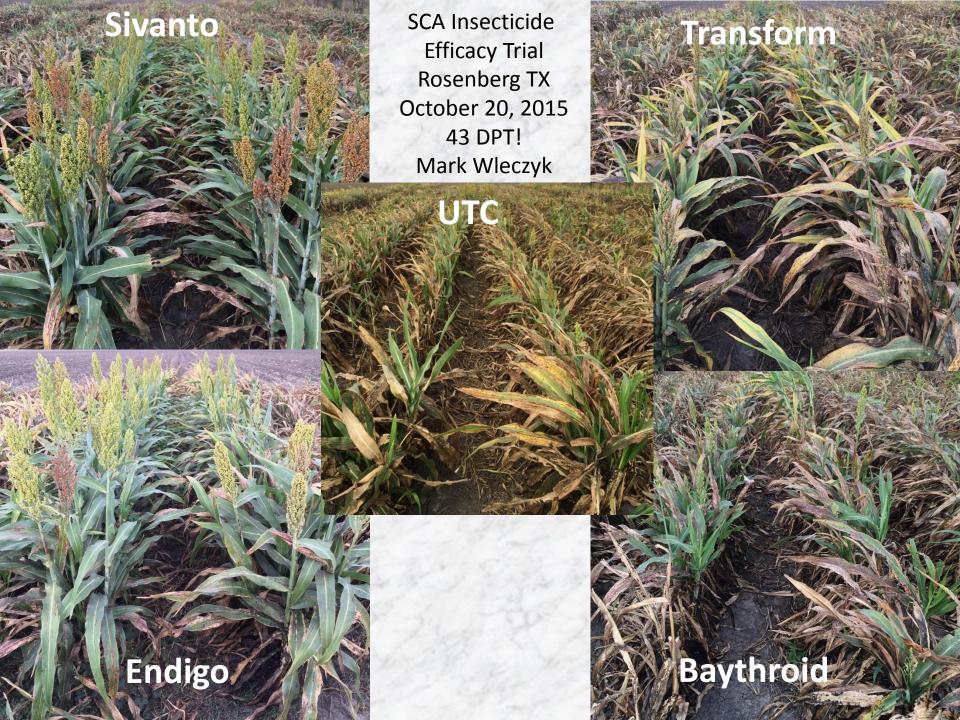
Sugarcane Aphid Insecticide Efficacy Trial Rosenberg, Texas 2015 Cooperator: Mark Wleczyk





43 Days Post Treatment with a single application of each insecticide!

Treatment



Transform: Section 18 Granted April 11, 2016

- Label is the same as previous 2 years with one exception
 - ≤ 3 days prior to bloom until seed set
- Time frame?
 - Bloom occurs 5 to 7 days after panicle exertion
 - Lasts 5 to 7 days
 - When is seed set?
 - Seed is set ~10 days after flowering (kernels reach their maximum size)
 - Window is ~2 to 3 weeks

Best Management Practices:

Sugarcane Aphid Threshold

- > 50 to 125 Aphids per leaf
- Detection winged and first instar upper leaves
 - Not colonized
 - Weekly scouting
- Colonization Colonies on underside of lower leaves
 - Honeydew present
 - Twice weekly scouting recommended



Sugarcane Aphid GRILIFE Treatment Decision Tool for Grain Sorghum



Chemical Cost (\$/ac)	\$9.00
Application Cost (\$/ac)	\$6.00
Sorghum Price (\$/bu)	\$3.75
Harvest Cost (\$/bu)	\$0.28
Transportation Cost (\$/bu)	\$0.20
Yield Loss per 100 Aphids (bu/ac)	3.325
Expected Yield without Sugarcane Aphid Damage (bu/ac)	70

\$ 15.00 Treatment Cost (\$/Ac)

Treatment cost includes cost of chemical. application, and repairs.

Treatment Decision Based on Yield Potential and Sugarcane Aphid Count per Leaf

Expected Grain Sorghum Vield (hu/ac) without Sugarcane Aphid Damage

A NOTE OF	Expected Grain Sorgnum Heid (bu/ac) without Sugarcane Aprild Damage							
	55	60	65	70	75	80	85	
25	Don't Treat	Don't Treat	Don't Treat	Don't Treat	Don't Treat	Don't Treat	Don't Treat	
50	Don't Treat	Don't Treat	Don't Treat	Don't Treat	Don't Treat	Don't Treat	Don't Treat	
75	Don't Treat	Don't Treat	Don't Treat	Don't Treat	Don't Treat	Don't Treat	Treat	
100	Treat	Treat	Treat	Treat	Treat	Treat	Treat	
125	Treat	Treat	Treat	Treat	Treat	Treat	Treat	
150	Treat	Treat	Treat	Treat	Treat	Treat	Treat	
175	Treat	Treat	Treat	Treat	Treat	Treat	Treat	
	25 50 75 100 125 150	55 Don't Treat Don't Treat To Don't Treat To Treat	55 60 25 Don't Treat Don't Treat 50 Don't Treat Don't Treat 75 Don't Treat Don't Treat 100 Treat Treat 125 Treat Treat 150 Treat Treat	55 60 65 25 Don't Treat Don't Treat Don't Treat 50 Don't Treat Don't Treat Don't Treat 75 Don't Treat Don't Treat Don't Treat 100 Treat Treat Treat Treat 125 Treat Treat Treat 150 Treat Treat Treat	55 60 65 70 25 Don't Treat Don't Treat Don't Treat Don't Treat 50 Don't Treat Don't Treat Don't Treat Don't Treat 75 Don't Treat Don't Treat Don't Treat Treat Treat 100 Treat Treat Treat Treat Treat Treat 125 Treat Treat Treat Treat Treat 150 Treat Treat Treat Treat Treat	55 60 65 70 75 25 Don't Treat Don't Treat Don't Treat Don't Treat Don't Treat 50 Don't Treat Don't Treat Don't Treat Don't Treat Don't Treat 75 Don't Treat Don't Treat Don't Treat Don't Treat Treat Treat Treat Treat 100 Treat Treat Treat Treat Treat Treat Treat 125 Treat Treat Treat Treat Treat Treat Treat 150 Treat Treat Treat Treat Treat Treat Treat	55 60 65 70 75 80 25 Don't Treat Tr	

Thanks for you attention!



Questions?