

How does Moddus Compare to Glyphosate for Ripening Sugarcane?

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Trinexapac-ethyl



For ripening in sugarcane

Sugarcane	11 - 19 (0.18 – 0.31)	Apply Palisade 2EC 28-60 days prior to harvest to increase sugar content and/or extend harvest window.
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For internode shortening for seed piece production in sugarcane

Sugarcane	4 - 12 (0.07 – 0.2)	Make a minimum of two split applications of Palisade 2EC. Make first application of 4-12 fl. oz./A when 6 fully developed full size leaves have appeared. Note the bottom leaf should be feeding internodes above the soil surface. Make a second application of 4-12 fl. oz./A when 6 additional fully developed full size leaves have appeared. The total amount applied per acre/crop/season should not exceed 19 fl. oz.
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Resende, P.A.P., J.E. Soares, and M. Hudetz (2001)

Increased sugar content of 10% for the 25 most important varieties in Brazil (200 g ai/ha, 45-60 DAT).

Kingston and Rixon (2007)

Successfully ripened cane with Moddus[®] when applied at 200 g ai/ha (56-70 DAT); 3 t/ha yield reduction observed in subsequent crops of 6 clones in Australia.

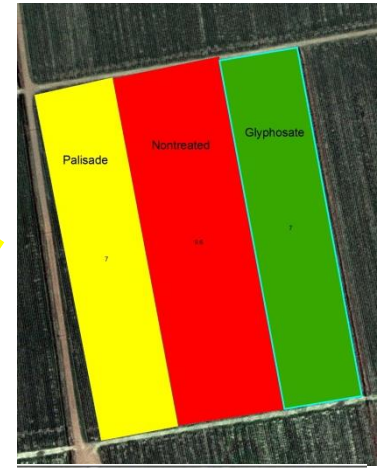
Large Scale Ripener Experiment

Blackberry Farms, Vacherie, LA

- HoCP 96-540 second ratoon
- Moddus™ 19 oz/A applied 57 days prior to harvest (August 19, 2013)
- Roundup PowerMax® 5.3 oz/A applied 28 days prior to harvest (Sep 17, 2013)
- At least 2 truck loads from each treatment
- Front & Back Compartments cored and averaged to calculate TRS

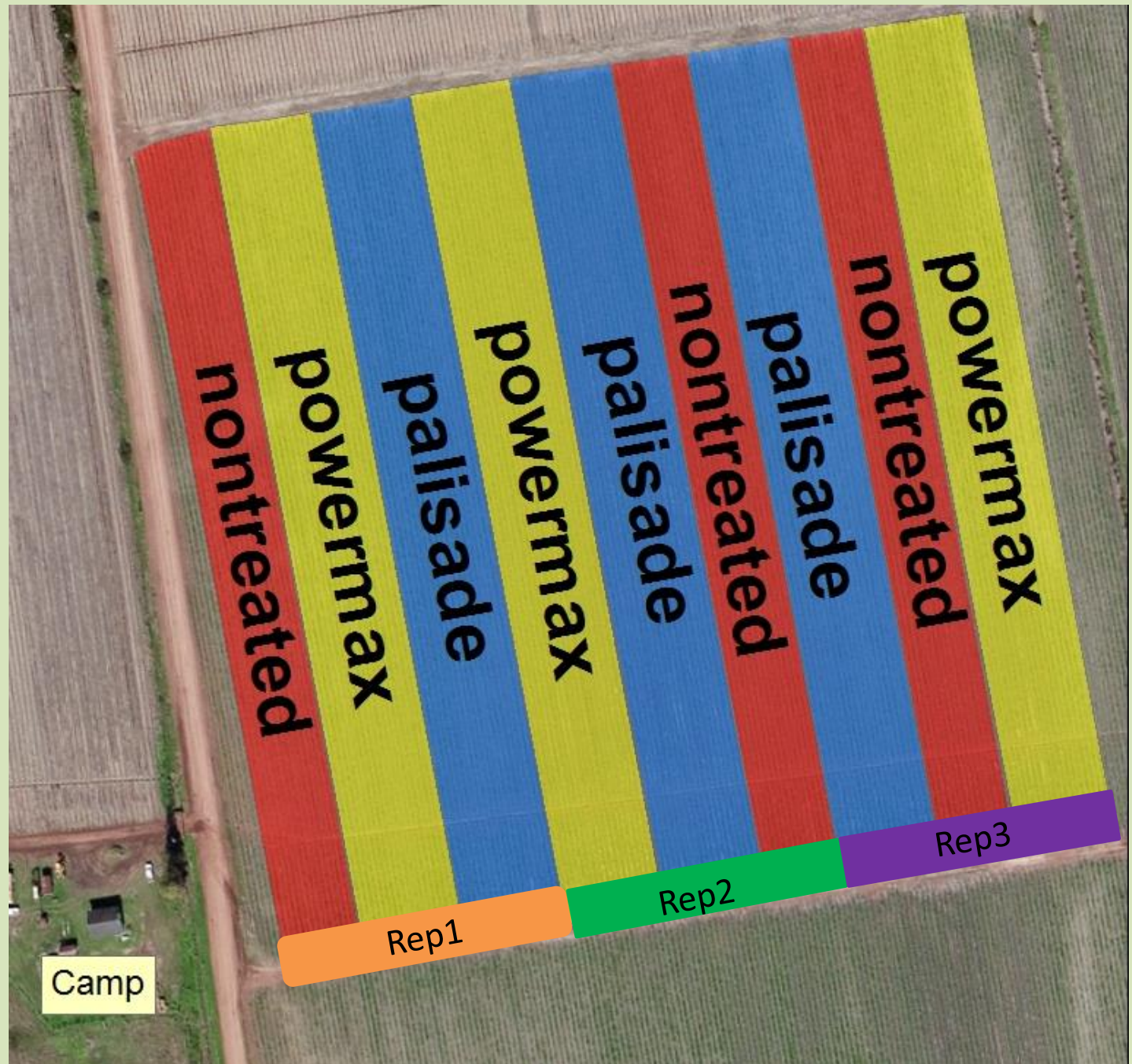


2012 Study Locations

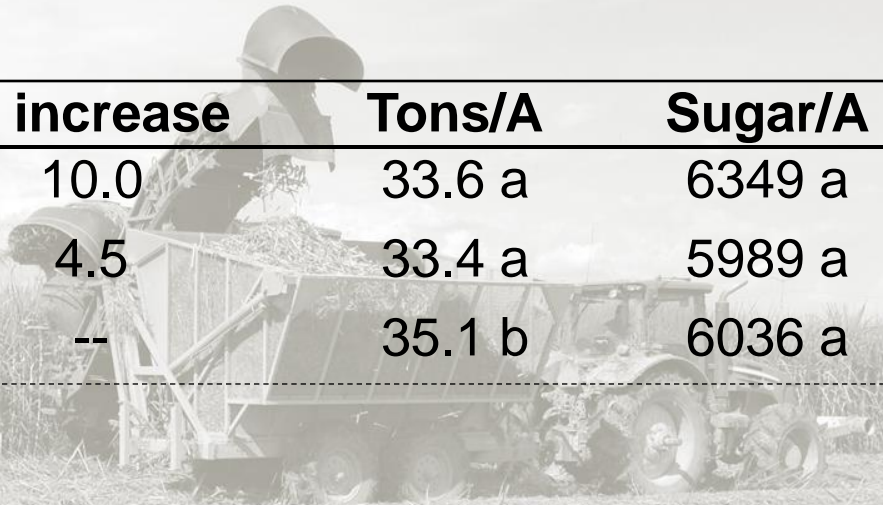


2013 Study

- RCB
- Plot size 2 acres
- 20 acre field



2013 Results



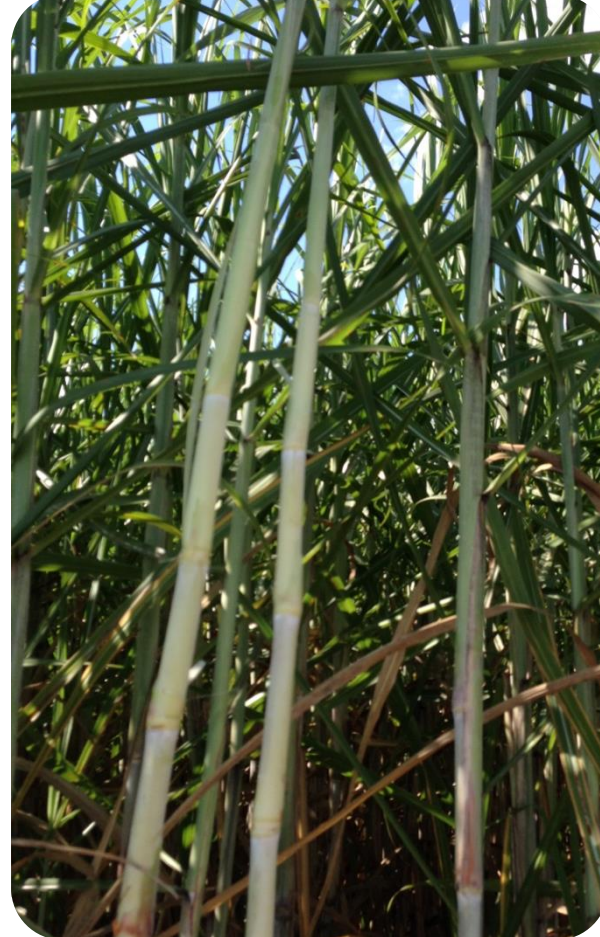
Treatment	TRS	% increase	Tons/A	Sugar/A
Glyphosate	189 a	10.0	33.6 a	6349 a
Moddus	180 ab	4.5	33.4 a	5989 a
Control	172 b	--	35.1 b	6036 a

2012 Results

Treatment	TRS	% increase	Tons/A	Sugar/A
Glyphosate	201 a	10.2	42.4 b	8497 a
Moddus	190 b	4.9	47.9 a	9084 a
Control	182 c	--	42.4 b	7693 b



Moddus



Control



PowerMax

Early Season Variety Response to Glyphosate

- **Varieties:** 540, 226, 233, 950, 283, 299, 371, & 838
- **Ripener Treatments:**
 - Roundup PowerMax® 5.3 oz./ Acre
 - Non-Treated Control
- **Plot size:** 6 ft wide by 20 ft long
- **6 Reps**
- **Split Plot**
- **2nd Stubble**
- **Harvested:** 28 days after treatment

TRS Response

Cultivar	Glyphosate TRS lb/ton	Nontreated TRS lb/ton	% TRS Increase	Response to Glyphosate
HoCP 96-540	222 bcd	188 f	18.2	Excellent
L 99-226	239 a	190 f	25.3	Excellent
L 99-233	212 de	186 f	14.0	Moderate
HoCP 00-950	227 abcd	218 cd	4.3	Minimal
L 01-283	236 ab	219 cd	7.8	Minimal
L 01-299	231 abc	187 f	23.3	Excellent
L 03-371	230 abc	192 f	19.8	Excellent
HoCP 04-838	223 bcd	199 ef	12.0	Moderate

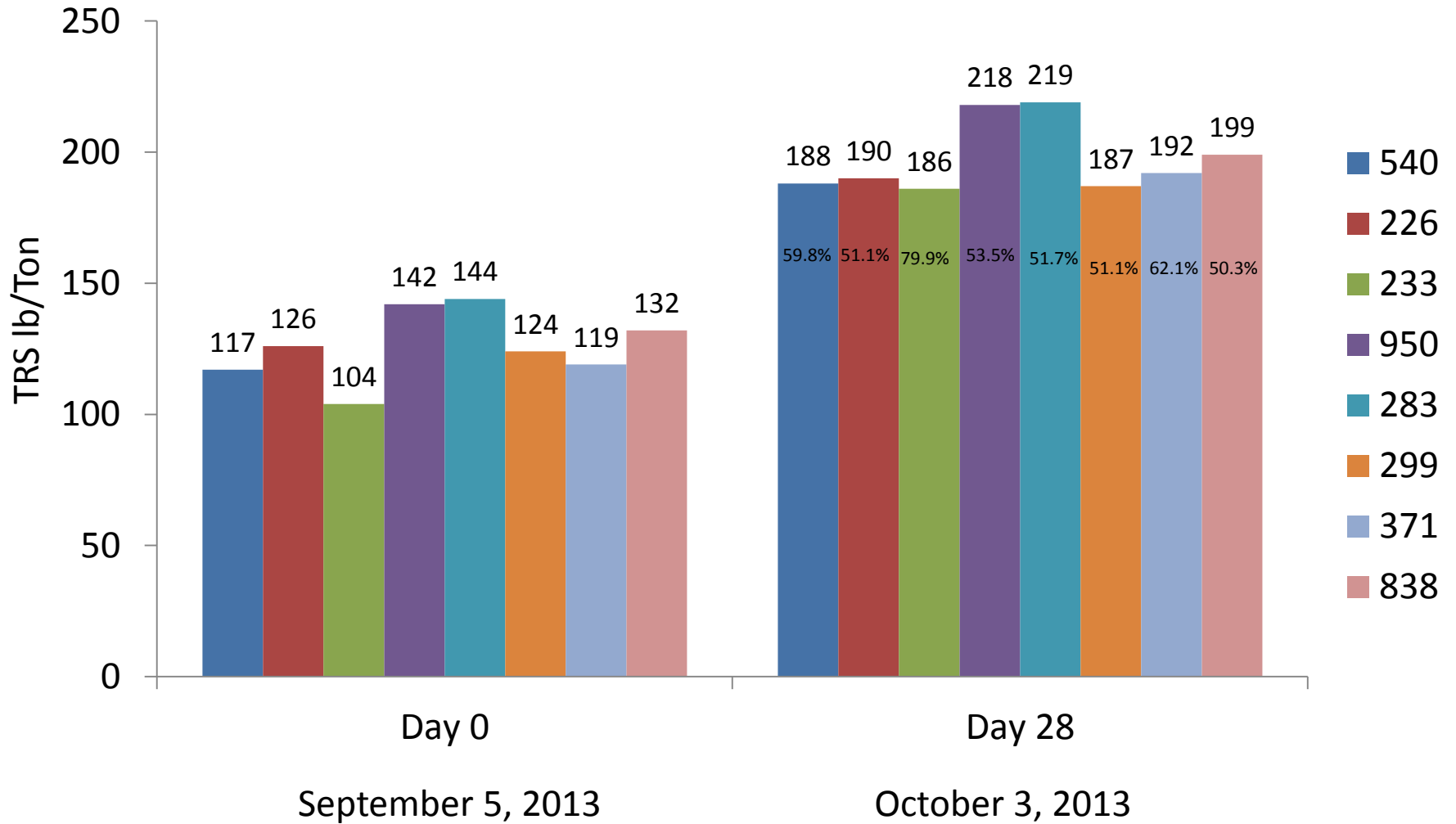
Cane and Sugar Yield

Treatment	Tonnage	Sugar Yield lb/A
Glyphosate (5.3 oz./ac)	37.7 b	8595 a
Nontreated	39.8 a	7849 b

% TRS Increase in 2013 vs 2011

Cultivar	2013 2 nd Stubble 28 days	10-3-2013 TRS	2011 Plantcane 28 days	09-26-2011 TRS	2011 Plantcane 42 days	10-10-2011 TRS
HoCP 96-540	18.2%	188	17.9%	189	4.9%	231
L 99-226	25.3%	190	10.1%	202	16.2%	239
L 99-233	14.0%	186	12.7%	189	9.7%	221
HoCP 00-950	4.3 %	218	11.6%	206	2.0%	238
L 01-283	7.8 %	219	3.4%	213	12.2%	227
L 01-299	23.3%	187	8.1%	205	13.1%	235
L 03-371	19.8%	192	8.6%	193	8.3%	225
HoCP 04-838	12.0 %	199	8.2%	211	23.5%	211

Natural Ripening

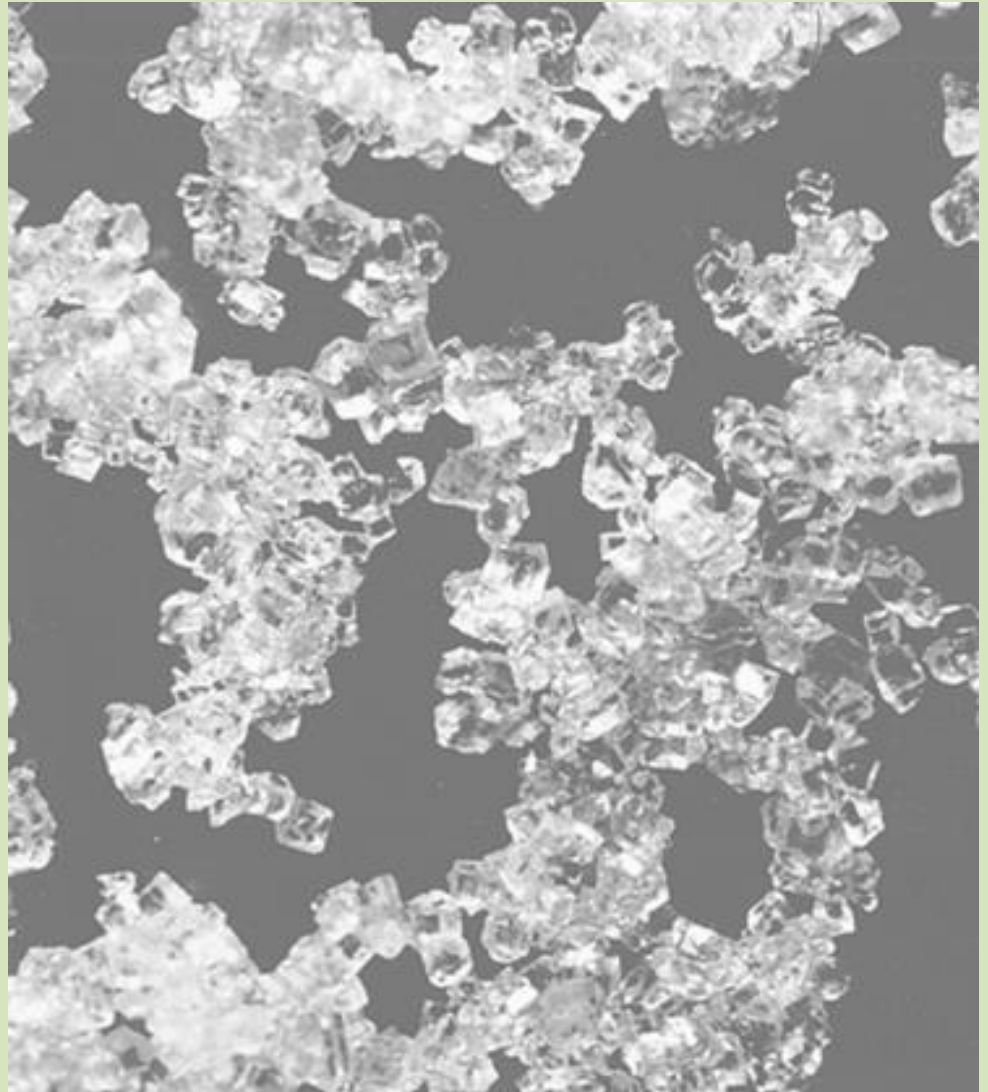


Conclusions

- Glyphosate is a more efficient ripener than Moddus. TRS was increased by 10% above the control in 28 days for Glyphosate treated 540 cane. Moddus increased TRS 4.5% above the control after 57 days.
- Both Glyphosate and Moddus reduced cane tonnage by approximately 1.5 tons/A.
- Sugar yield per acre was not improved nor compromised regardless of ripener treatment.

THANKS

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Questions ?

