



**Sugarcane Ripeners:
Past and Present**

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What and When Was the First Chemical Ripener Labeled for Use in Louisiana?

- ✓ What? Polaris® - Monsanto Company¹
- ✓ When? 1975 (Polaris was the first product labeled for commercial use but was never recommended by the LSU AgCenter. Over 300 compounds have been tested.)

¹ N,N-bis(phosphomethyl)glycine

What Chemical Ripeners Were Labeled for Use in 2007¹?

- ✓ Polado L® - Monsanto
- ✓ Roundup Weathermax® - Monsanto
- ✓ Touchdown Total® - Syngenta

¹ All products listed above are formulations of glyphosate. Glyphosate sold as Polado® (Monsanto) was first labeled for use in 1980.

Why Use a Ripener?

- ✓ Management tool to increase recoverable sugar per ton of cane and per acre

2007 Ripener Tests – Tests I & II

- ✓ Variety and Crop Year – LCP 85-384, third-year stubble
- ✓ Treatment Dates – Aug 15 (Test I) and Sep 15 (Test II) in plant-, first- and second-stubble crops since 2004. Not treated in 2007.

2007 Ripener Test

Treatments – Tests I & II

- ✓ No ripener treatments were applied in 2007. Tests were harvested on approximately the same dates in 2007 as in 2004, 2005 and 2006 (Sep and Oct, respectively)

2007 Ripener Test

Harvest Dates – Tests I & II

- ✓ By combine on Sep 27 and Oct 25, respectively



Test I. Yield of tons cane per acre (TC/A) when harvested on Sep 27, 2007

TRT	TC/A
CTL	20.0
Polado-L	24.9
RdUp Wmax	21.2
TD Total	23.3

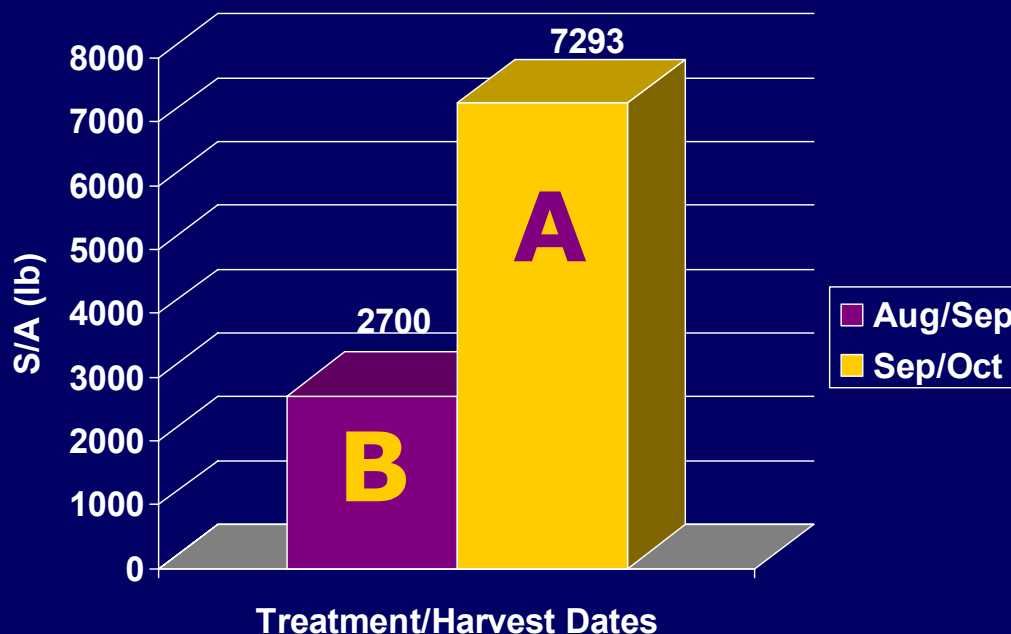


Test II. Yield of tons cane per acre (TC/A) when harvested on Oct 25, 2007

TRT	TC/A
CTL	36.8
Polado-L	33.1
RdUp Wmax	33.1
TD Total	33.9

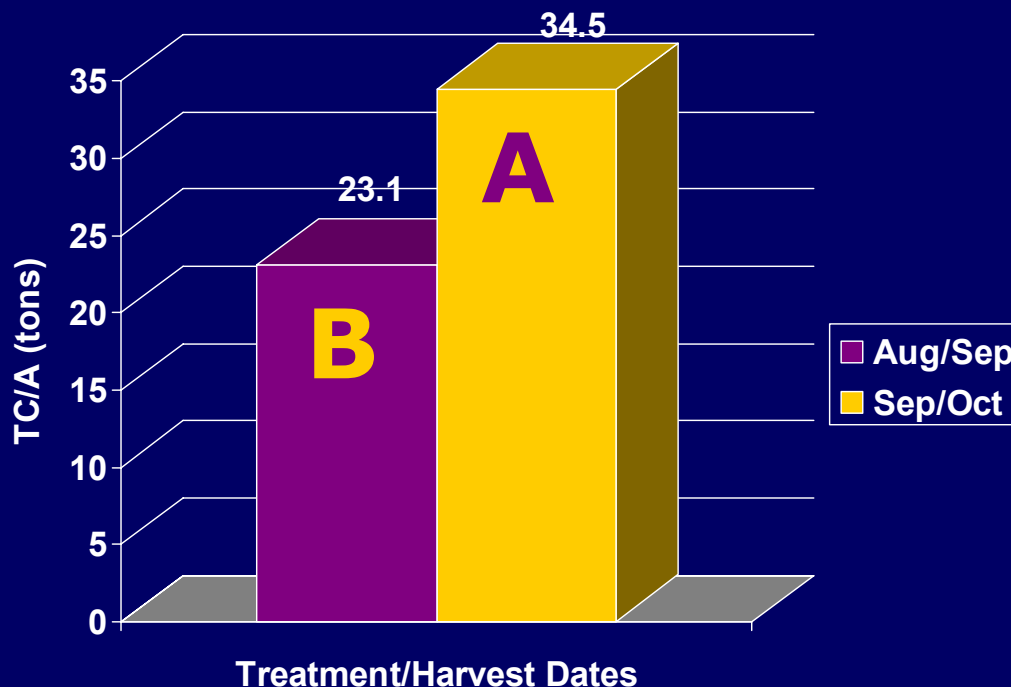
Impact of Dates of Harvest on Yield of Sugar per Acre (S/A) in 3rd Stubble Crop

Ripener Tests I & II (2004-2007)



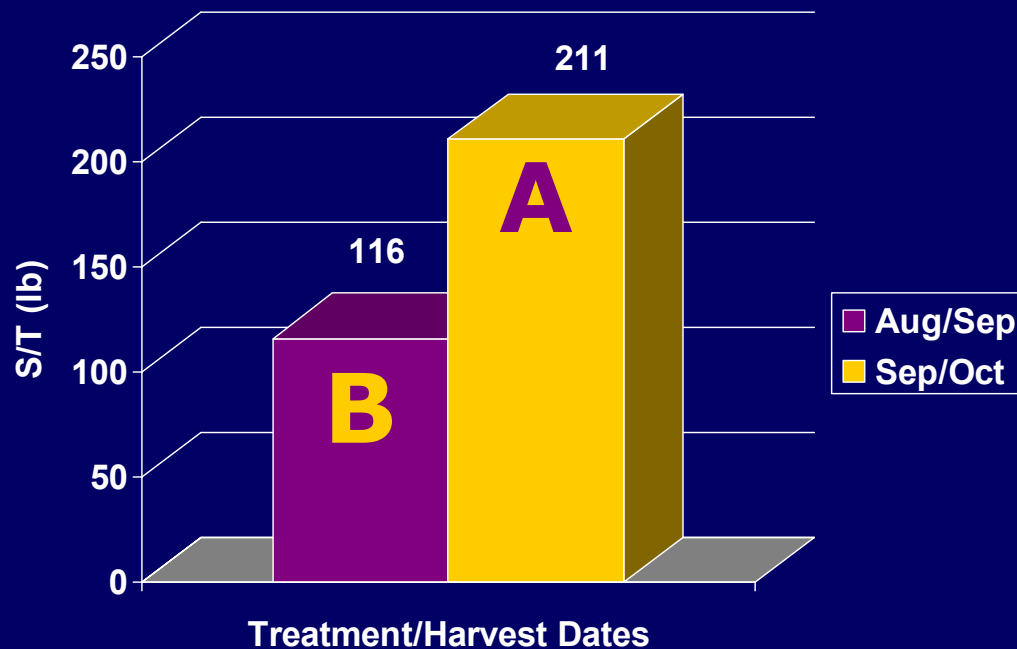
Impact of Dates of Harvest on Yield of Tons Cane per Acre (TC/A) in 3rd Stubble Crop

Ripener Tests I & II (2004-2007)



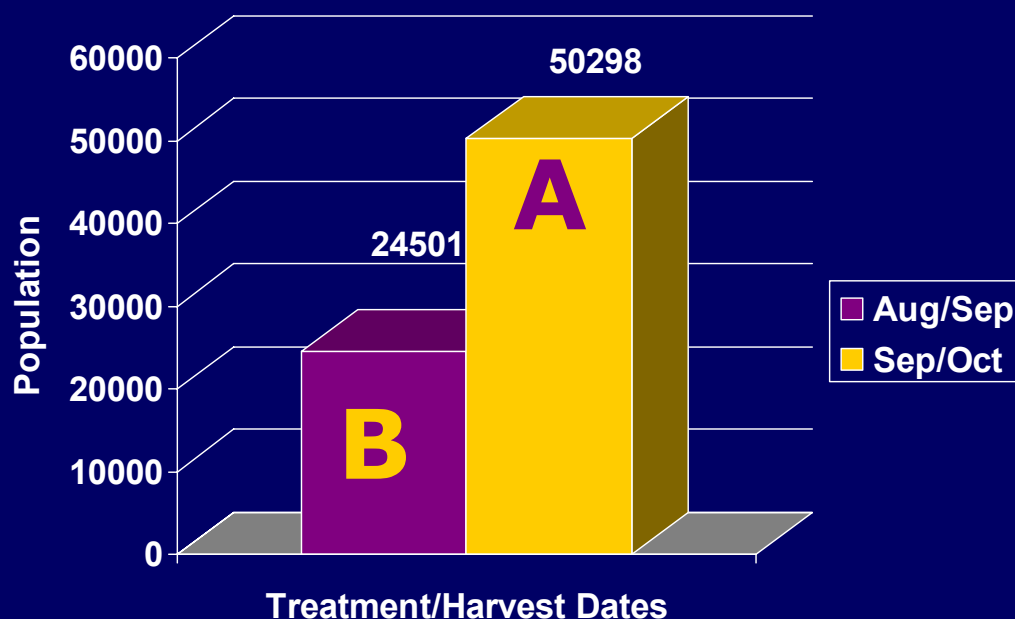
Impact of Dates of Harvest on Yield of Sugar per Ton (S/T) in 3rd Stubble Crop

Ripener Tests I & II (2004-2007)



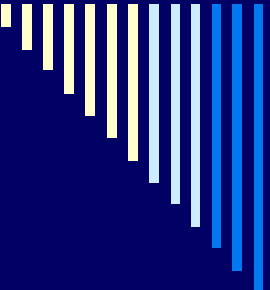
Impact of Date of Harvest on Stalk Population in 3rd Stubble Crop

Ripener Tests I & II (2004-2007)



Why Need for Alternative Ripeners?

- ✓ **Glyphosate-ready sugarcane varieties for enhanced weed control**
- ✓ **Ripener with improved consistency**
- ✓ **Ripener with little or no effect on cane tonnage**
- ✓ **Ripener with little or no effect on subsequent stubble crop**



Test II. Effect of Palisade on yield of tons cane per acre (TC/A) when harvested on Oct 25, 2007

TRT	TC/A
CTL	36.8
Palisade @ 0.223 lb/A	35.2
Palisade @ 0.267 lb/A	39.2
Palisade @ 0.312 lb/A	36.0

2007 Ripener Test – Tests III

- ✓ **Varietal Response to Glyphosate**
- ✓ **Varieties Included: LCP 85-384, Ho 95-988, HoCP 96-540, L 97-128, L 99-226, L 99-233, L 00-266, CP 89-2143, TuCP 77-42**
- ✓ **Treatment date – Sep 17, 2007**

2007 Ripener Test

Treatments – Tests III

- ✓ Control
- ✓ Polado-L @ 8 oz/acre (0.250 lb + Induce @ 0.25%)
- ✓ 8 GPA

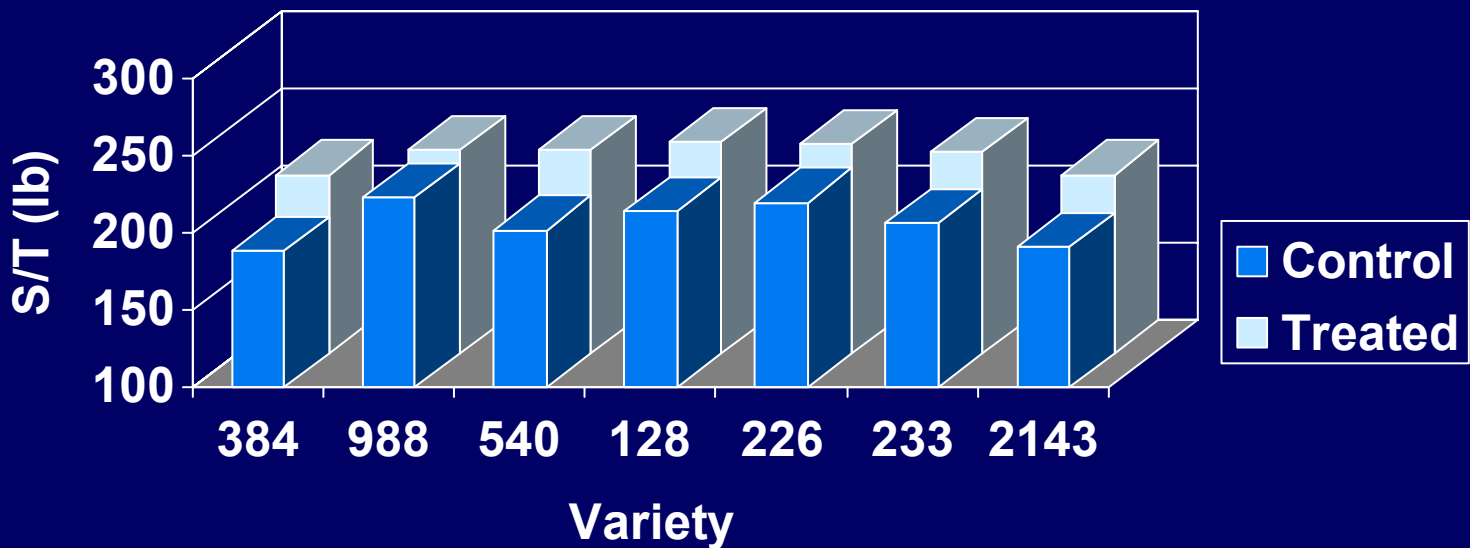
2007 Ripener Test

Sample Dates (Hand) – Test III

- ✓ Oct 18 (28 DAT)
- ✓ Oct 31 (42 DAT)
- ✓ Nov 14 (56 DAT)

Test IIIa. Variety test sampled at 28 DAT (8 oz Polado L)*

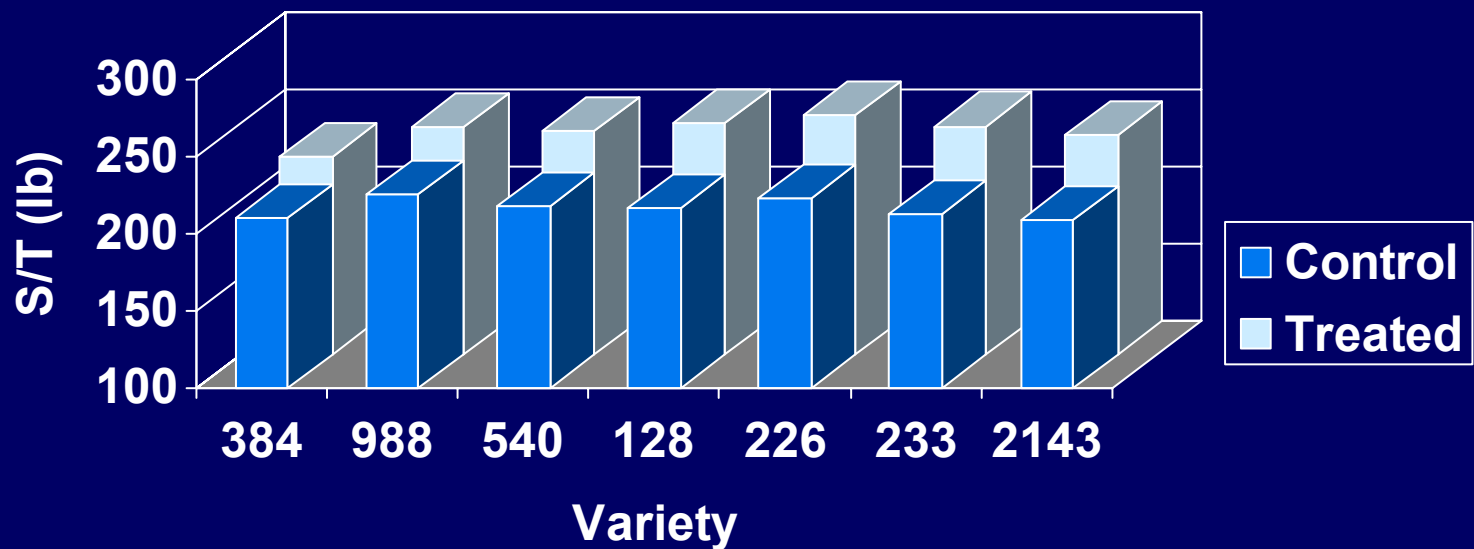
Variety Test



* Treated Sep 17, 2007

Test IIIa. Variety test sampled at 42 DAT (8 oz Polado L)*

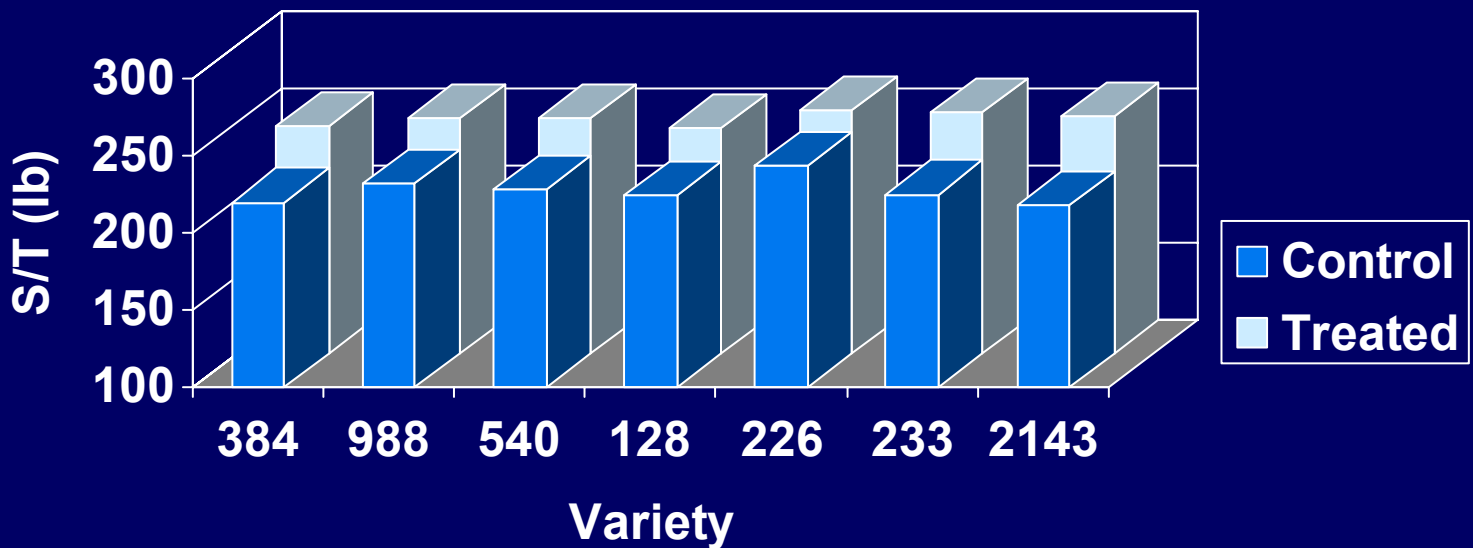
Variety Test



* Treated Sep 17, 2007

Test IIIa. Variety test sampled at 56 DAT (8 oz Polado L)*

Variety Test



* Treated Sep 17, 2007

2007 Ripener Test – Tests IV & V

- ✓ Variety & Crop Year – LCP 85-384, second-year stubble
- ✓ Treatment Dates – Sep 17 (Test IV) & Oct. 4 (Test V)
- ✓ Spray Vol. – 8 GPA

2007 Ripener Test

Treatments – Tests IV & V (5 total)

- ✓ Control
- ✓ Polado-L (0.187 lb + Induce @ 0.25%)
- ✓ Palisade (0.179, 0.223 & 0.312 lb A/A)
- ✓ PowerMax (0.225, 0.187 & 0.250 lb AE/A)-

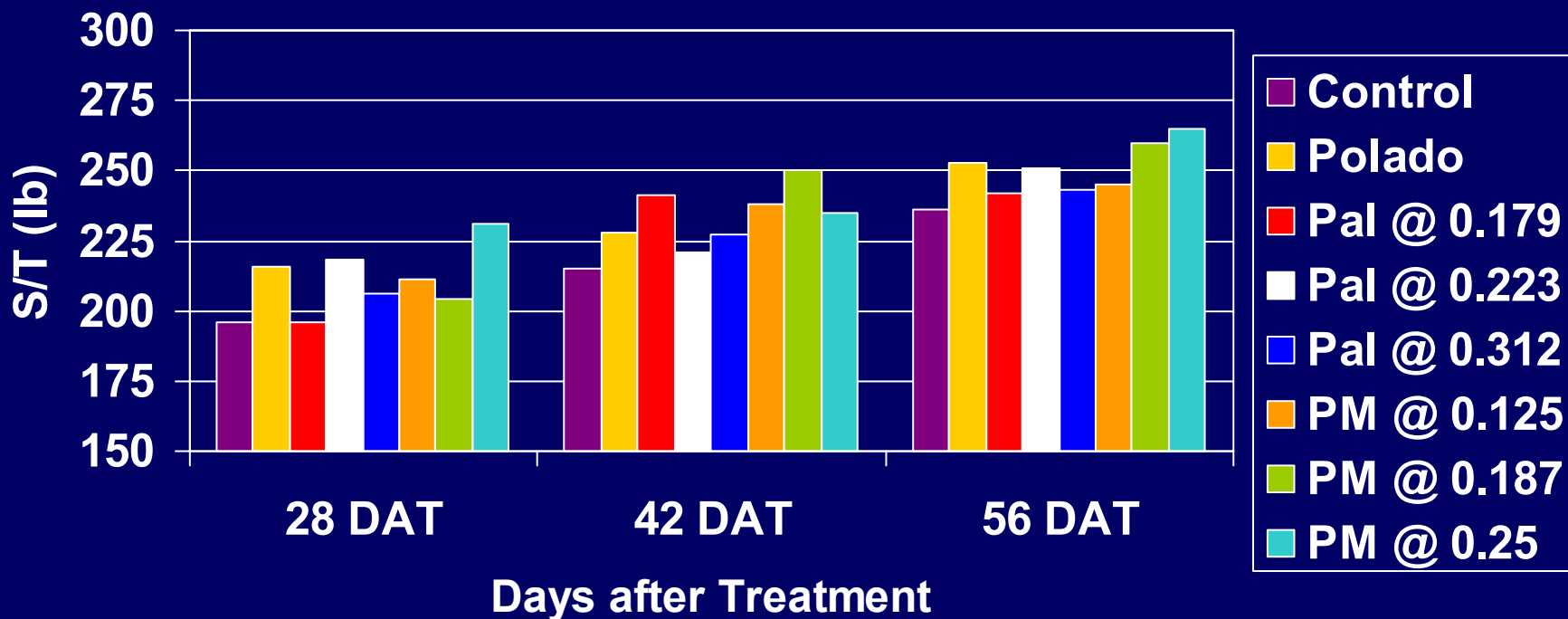
2007 Ripener Test

Sample Dates (Hand) – Test IV

- ✓ Oct 18 (28 DAT)
- ✓ Oct 31 (42 DAT)
- ✓ Nov 14 (56 DAT)

Test IVa-c. Candidate ripener test sampled at 28, 42 & 56 DAT*

Candidate Ripeners



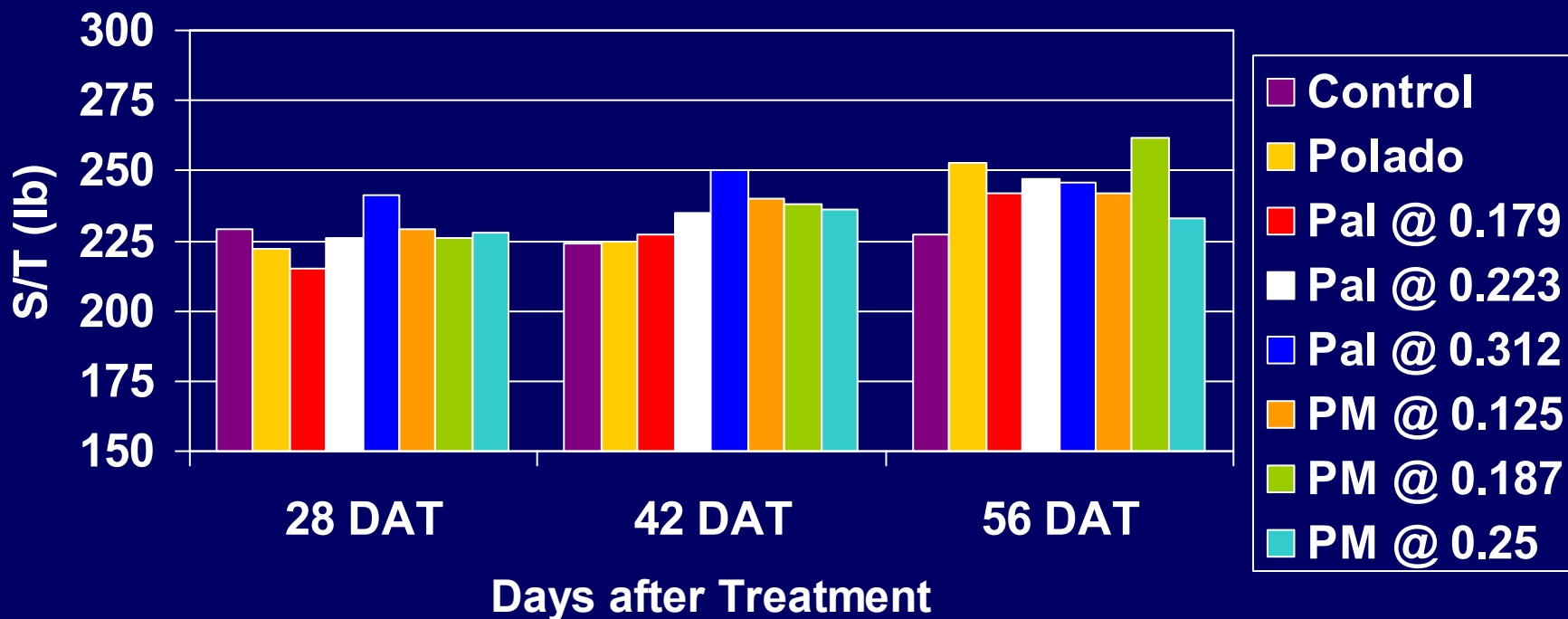
2007 Ripener Test

Sample Dates (Hand) – Test V

- ✓ Nov 06 (28 DAT)
- ✓ Nov 20 (42 DAT)
- ✓ Dec 05 (56 DAT)

Test IVa-c. Candidate ripener test sampled at 28, 42 & 56 DAT*

Candidate Ripeners



2007 Ripener Tests Summary

- **Date of harvesting has greater impact on subsequent stubble crop than the use of a chemical ripener.**
- **Limited response of all varieties at 28 DAT at 8 oz Polado L equivalency**
- **Significant response of all varieties at 42 & 56 DAT at 8 oz Polado L equivalency**
- **Limited response to Palisade when applied late in the season**

Acknowledgements

Co-investigators

- ✓ Ken Gravois
- ✓ Keith Bischoff
- ✓ Jim Griffin

Financial Support

- ✓ American Sugar Cane League
- ✓ Syngenta
- ✓ Monsanto

Questions?

