2006 Ripener Research

Benjamin L. Legendre
Sugarcane Specialist/Professor
Sugar Research Station
St. Gariel, LA 70776

LSU AgCenter Research & Extension

2007 LATMC, Alexandria, LA

Why Use a Ripener?

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

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What Was Labeled for Use in 2006[1]?

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

[1] All products listed above are formulations of glyphosate

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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

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2006 Ripener Tests – Tests I & II

- ✓ Variety and Crop Year – LCP85-384, second-year stubble
- ✓ Treatment Dates – Aug 16, 2006 (Test I) & Sep 13, 2006 (Test II)
- ✓ Spray Vol. – 8 GPA

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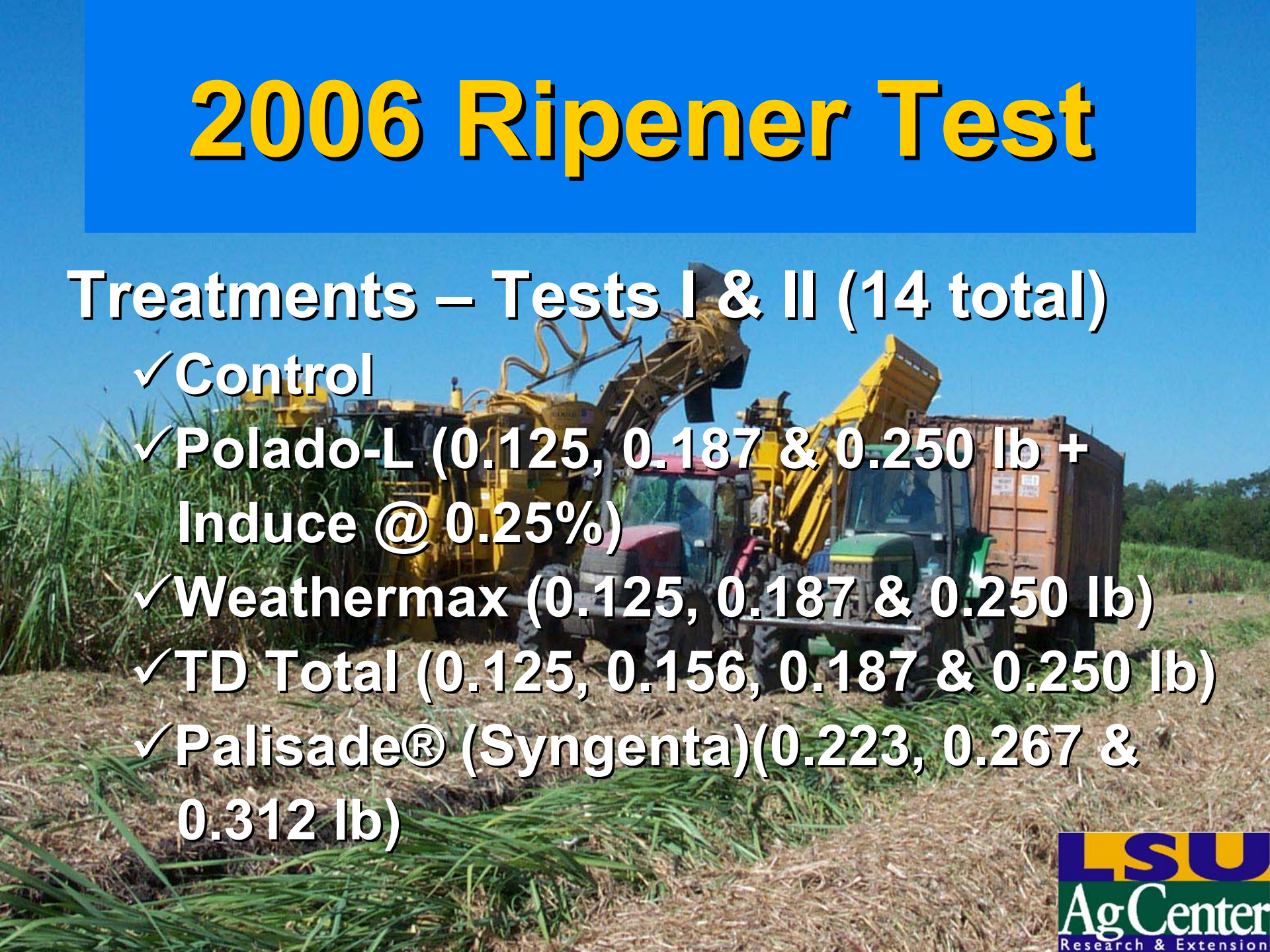
2006 Ripener Test



Treatments – Tests I & II (14 total)

- ✓Control
- ✓Polado-L (0.125, 0.187 & 0.250 lb + Induce @ 0.25%)
- ✓Weathermax (0.125, 0.187 & 0.250 lb)
- ✓TD Total (0.125, 0.156, 0.187 & 0.250 lb)
- ✓Palisade® (Syngenta)(0.223, 0.267 & 0.312 lb)

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2006 Ripener Test

Sample/Harvest Dates – Test I

- ✓ By hand on Sep 14 (29 DAT) & Sep 27 (42 DAT)
- ✓ By combine on Oct 11 (56 DAT)

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Test Ia-c. Effect of glyphosate at 6 oz rate equivalency on TC, S/T & S/A - 2006

TRT	28 DAT	42 DAT	56 DAT
CTL	107	133	25.9/173/4475
Polado-L	190+	220+	20.3/237/4816
RdUp Wmax	224+	242+	17.7/233/4078
TD Total	182+	209+	21.2/226/4772

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TEST I: Treated Aug 16, 2006

Test Ia-c. Effect of Palisade on TC, S/T & S/A - 2006

TRT	28 DAT	42 DAT	56 DAT
CTL	107	133	25.9/173/4475
Palisade @ 0.223 lb/A	182+	217+	20.3/232/4704
Palisade @ 0.267 lb/A	201+	199+	21.2/227/4810
Palisade @ 0.312 lb/A	204+	217+	19.8/202/3988

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TEST I: Treated Aug 16, 2006

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Sample/Harvest Dates – Test II

- ✓ By hand on Oct 11 (28 DAT) & Oct 25 (42 DAT)
- ✓ By combine on Nov 08 (56 DAT)

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Test IIa-c. Effect of glyphosate at 6 oz rate equivalency on TC, S/T & S/A - 2006

TRT	28 DAT	42 DAT	56 DAT
CTL	187	223	28.2/239/6743
Polado-L	245+	292+	19.8/290/5752
RdUp Wmax	249+	291+	19.8/296/5894
TD Total	245+	290+	20.0/291/5820

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TEST II: Treated Sep 13, 2006

Test IIa-c. Effect of Palisade on TC, S/T & S/A - 2006

TRT	28 DAT	42 DAT	56 DAT
CTL	187	223	28.2/239/6743
Palisade @ 0.223 lb/A	211+	264+	24.0/261/6264
Palisade @ 0.267 lb/A	216+	261+	24.4/267/6492
Palisade @ 0.312 lb/A	227+	273+	26.9/266/7147

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TEST II: Treated Sep 13, 2006

2006 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 20, 2006

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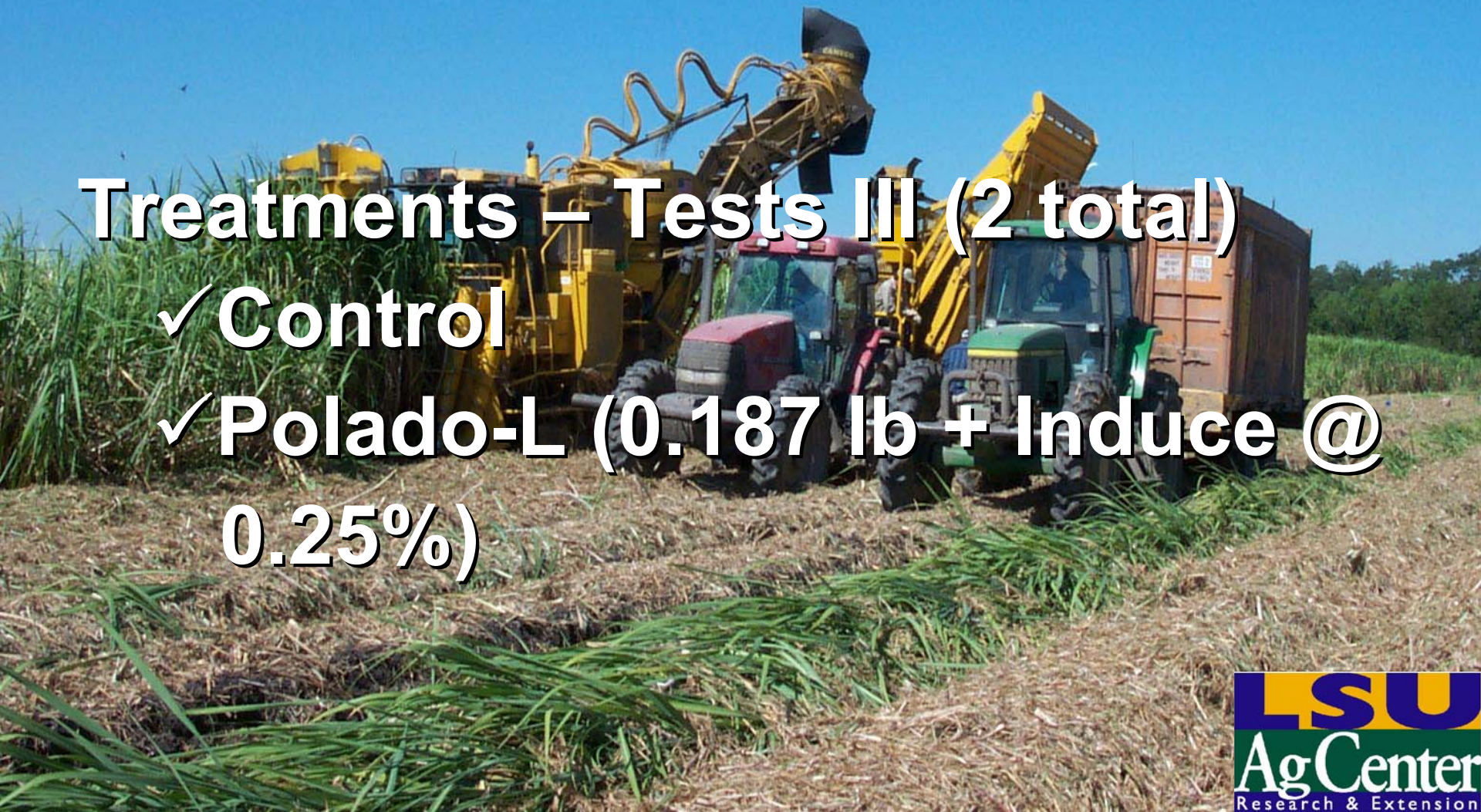
2006 Ripener Test



Treatments – Tests III (2 total)

- ✓Control
- ✓Polado-L (0.187 lb + Induce @ 0.25%)

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2006 Ripener Test

Sample Dates (Hand) – Test III

- ✓ Oct 18 (28 DAT)
- ✓ Nov 01 (42 DAT)
- ✓ Nov 15 (56 DAT)

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Test IIIa. Response of varieties to glyphosate application at 28 DAT

Variety	TRS (lbs/t)			% Increase
	Non-treated	Glyphosate	Increase	
LCP 85-384	216	235	19	9
Ho 95-988	227	238	11	5
HoCP 96-540	215	234	19	9
L 97-128	213	251	38	18
L 99-226	236	261	25	11
L 99-233	214	230	16	7
CP 89-2143	197	231	34	17

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Polado-L applied 6 oz on Sep 20, 2006

Test IIIb. Response of varieties to glyphosate application at 42 DAT

Variety	TRS (lbs/t)			% Increase
	Non-treated	Glyphosate	Increase	
LCP 85-384	245	277	32	13
Ho 95-988	247	272	25	10
HoCP 96-540	250	275	25	10
L 97-128	253	271	18	7
L 99-226	242	280	38	16
L 99-233	251	267	16	6
CP 89-2143	231	255	24	10

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Polado-L applied at 6 oz on Sep 20, 2006

Test IIIc. Response of varieties to glyphosate application at 56 DAT

Variety	TRS (lbs/t)			% Increase
	Non-treated	Glyphosate	Increase	
LCP 85-384	255	282	27	11
Ho 95-988	269	264	(5)	(2)
HoCP 96-540	248	280	32	13
L 97-128	245	274	29	12
L 99-226	268	297	29	11
L 99-233	246	270	24	10
CP 89-2143	245	269	24	10

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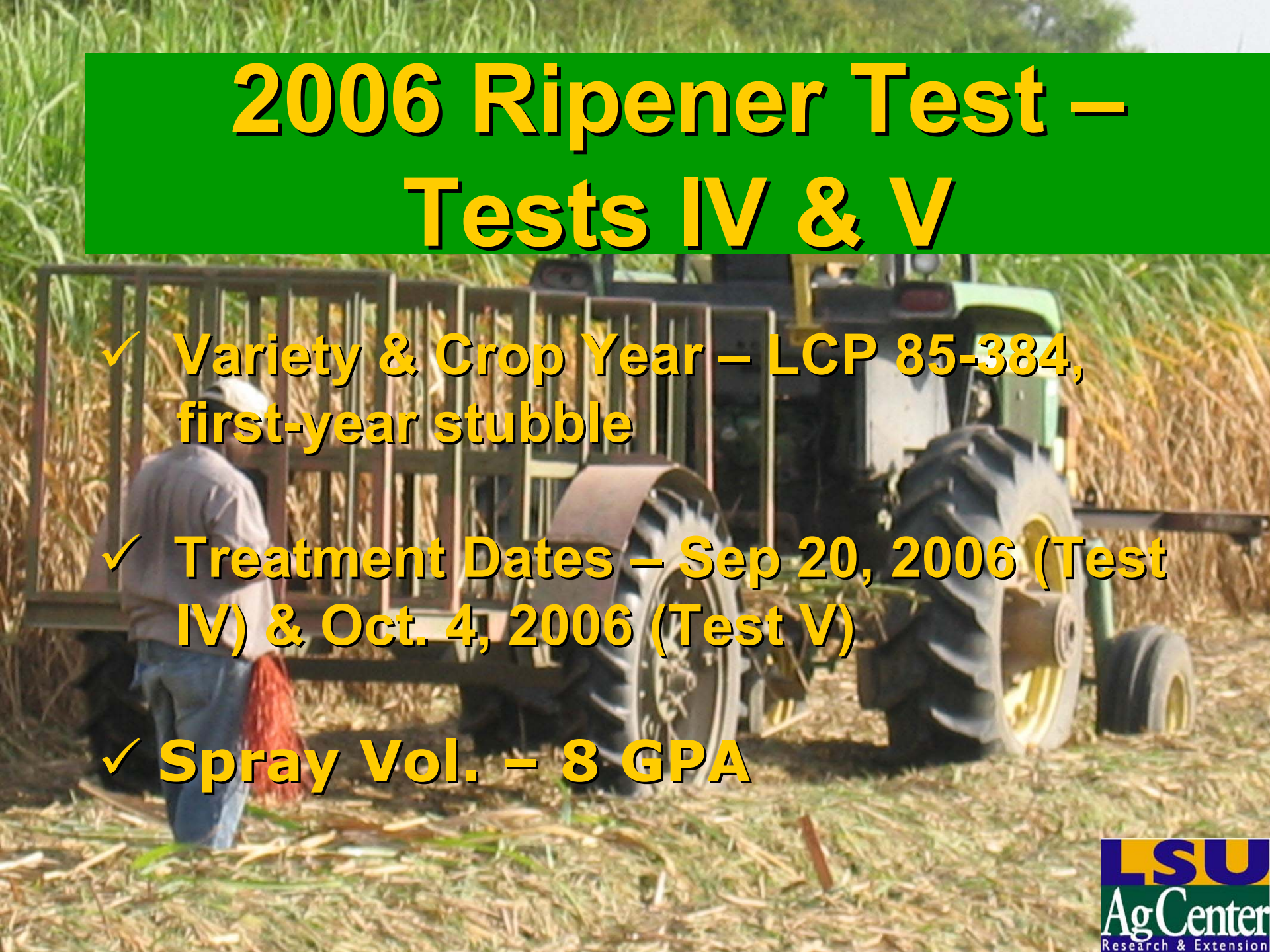
Polado-L applied at 6 oz on Sep 20, 2006

2006 Ripener Test – Tests IV & V



- ✓ Variety & Crop Year – LCP 85-384, first-year stubble
- ✓ Treatment Dates – Sep 20, 2006 (Test IV) & Oct. 4, 2006 (Test V)
- ✓ Spray Vol. – 8 GPA

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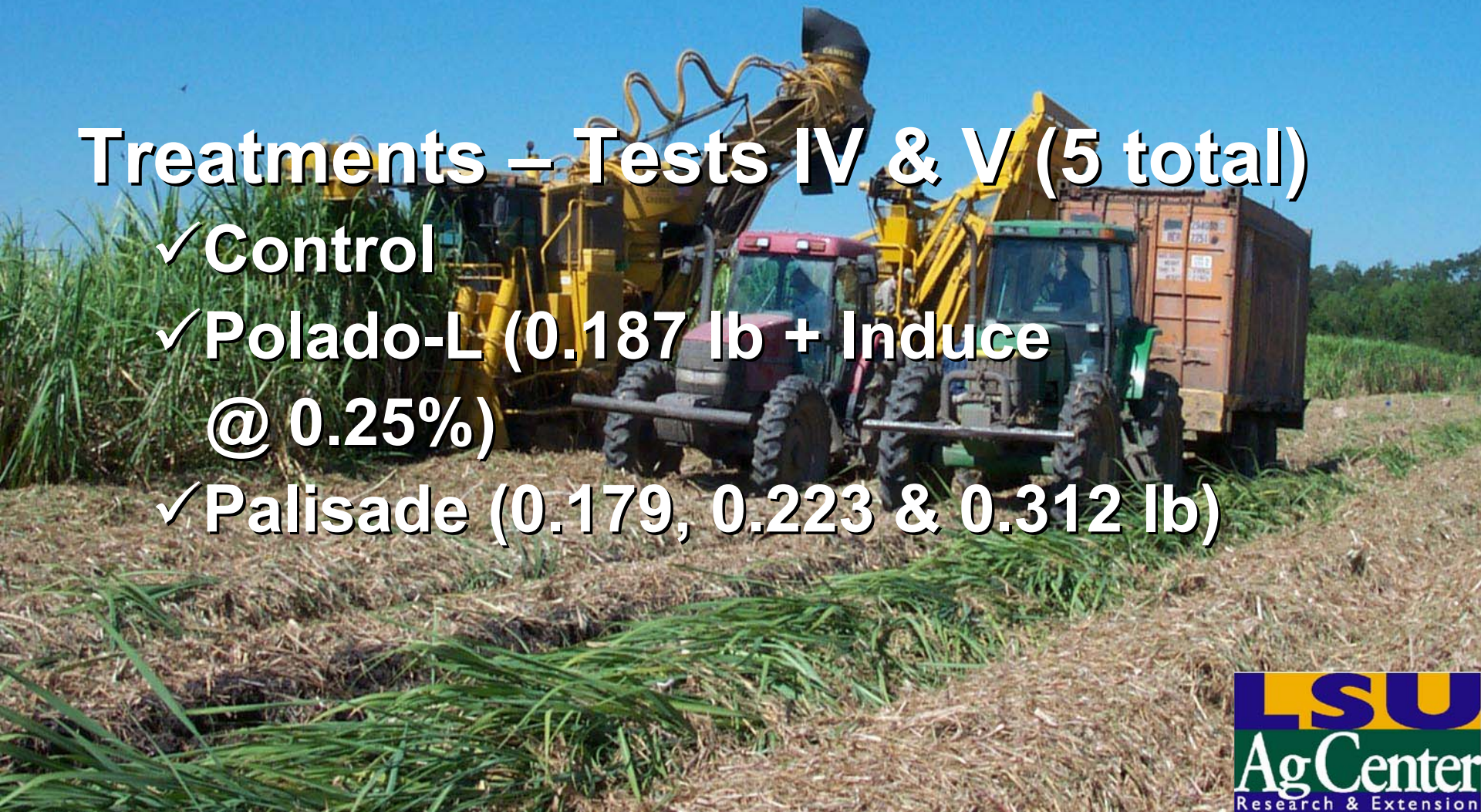
2006 Ripener Test



Treatments – Tests IV & V (5 total)

- ✓Control
- ✓Polado-L (0.187 lb + Induce @ 0.25%)
- ✓Palisade (0.179, 0.223 & 0.312 lb)

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2006 Ripener Test

Sample Dates (Hand) – Test IV

- ✓ Oct 18 (28 DAT)
- ✓ Nov 01 (42 DAT)
- ✓ Nov 15 (56 DAT)

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Test IV a-c. Effect of Palisade on TRS - 2006

TRT	28 DAT	42 DAT	56 DAT
Control	196	237	251
Polado-L @ 0.187 lb/A	221	274	289
Palisade @ 0.179 lb/A	210	268	270
Palisade @ 0.223 lb/A	212	266	268
Palisade @ 0.312 lb/A	223	262	277

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TEST IV: Treated Sep 20, 2006

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Sample Dates (Hand) – Test V

- ✓ Nov 01 (28 DAT)
- ✓ Nov 15 (42 DAT)
- ✓ Nov 29 (56 DAT)

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Test V a-c. Effect of Palisade on TRS - 2006

TRT	28 DAT	42 DAT	56 DAT
Control	257	257	255
Polado @ 0.187 lb/A	260	279	276
Palisade @ 0.179 lb/A	255	272	266
Palisade @ 0.223 lb/A	250	261	263
Palisade @ 0.312 lb/A	254	261	265

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TEST V: Treated Oct 04, 2006

2006 Ripener Tests Summary

- Glyphosate based ripeners superior to Palisade in improving yield of sugar/ton
- However, Palisade is an effective ripener. May require longer treatment to harvest interval than glyphosate based ripeners
- Glyphosate based ripeners appear to affect cane tonnage more so than Palisade

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Acknowledgements

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

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

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Questions?