

How does Palisade Compare to Glyphosate for Ripening Sugarcane?

Al Orgeron, Ben Legendre, Jim Griffin, Kenneth Gravois,
Mike Hebert, Blair Hebert, and Jimmy Flanagan



Desirable Characteristics of a Ripener for the Louisiana Sugarcane Industry?

- Increases TRS (lbs/ton)
- Does not affect sugarcane yield (tons/A)
- Increases sugar yield per hectare (lbs/A)
- Cost effective
- No adverse effect on ratoon crops



Trinexapac-ethyl



syngenta.

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.
-----------	--------------------------	--

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.
-----------	------------------------	---

Resende, P.A.P., J.E. Soares, and M. Hudetz (2001)

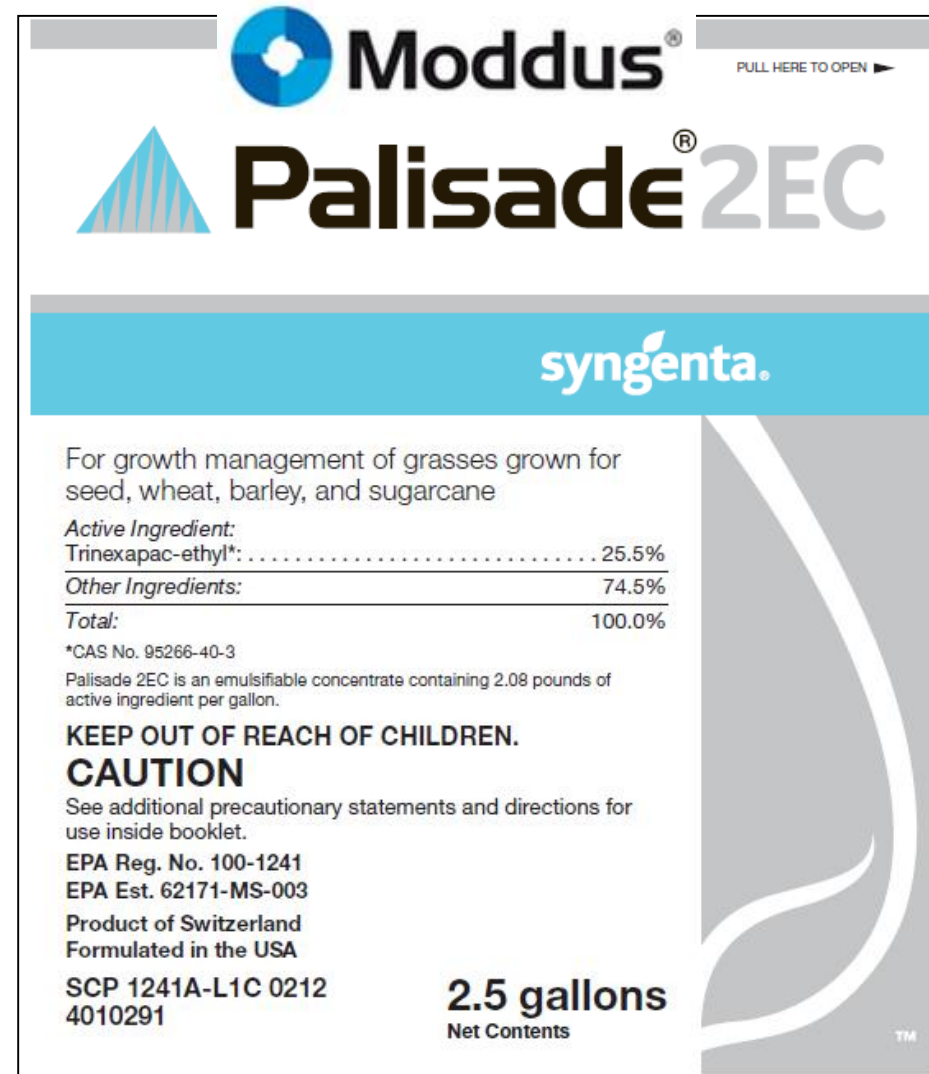
Increased sugar content of 10% for the 25 most important varieties in Brazil (200 g ai/ha, 45-60 DAT).

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.

Trinexapac-ethyl

- Not a herbicide
- Mode of action
 - interferes with the biosynthesis of gibberellins
 - mimics 2-oxoglutaric acid which reduces the amount of GA1
 - retards cell elongation

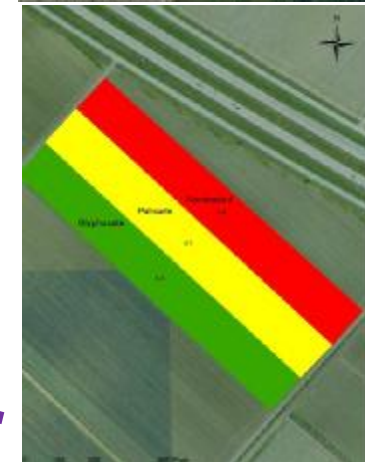
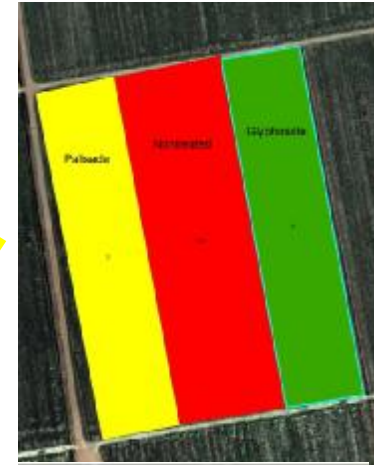


Large Scale Ripener Experiment

- 3 Locations
 - Blackberry Farms, Vacherie, LA
 - Hebert Brothers, Thibodaux, LA
 - Ronald Hebert, Jeanerette, LA
- HoCP 96-540 second ratoon
- Trinexapac-ethyl applied 56 days prior to harvest
- Glyphosate applied 28 days prior to harvest



Study Locations



Treatment to Harvest Intervals

Farm	Treatment	App. Date	Harvest Date	Harvest Int.
Blackberry	Glyphosate	9/11/2012	10/8/2012	27
Blackberry	T.E.	8/13/2012	10/8/2012	56
Blackberry	Control		10/8/2012	
RonaldHebert	Glyphosate	9/13/2012	10/11/2012	28
RonaldHebert	T.E.	8/11/2012	10/11/2012	61
RonaldHebert	Control		10/11/2012	
HebertBros	Glyphosate	9/14/2012	10/15/2012	31
HebertBros	T.E.	8/17/2012	10/15/2012	59
HebertBros	Control		10/15/2012	

Blackberry Farms

Treatment	Acres Harvested	Mean TRS	Handcut TRS	Mean Tons/A	Sugar/A
Glyphosate	1.68	200	206	46.6	9311
Palisade (Moddus)	1.47	186	188	52.1	9703
Control	1.60	180	179	49.5	8934



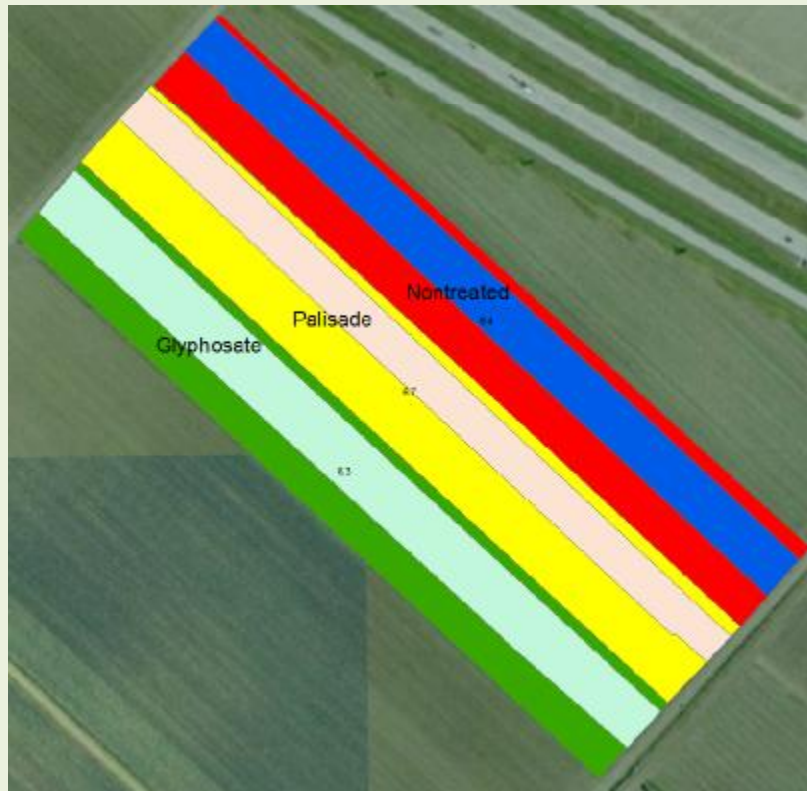
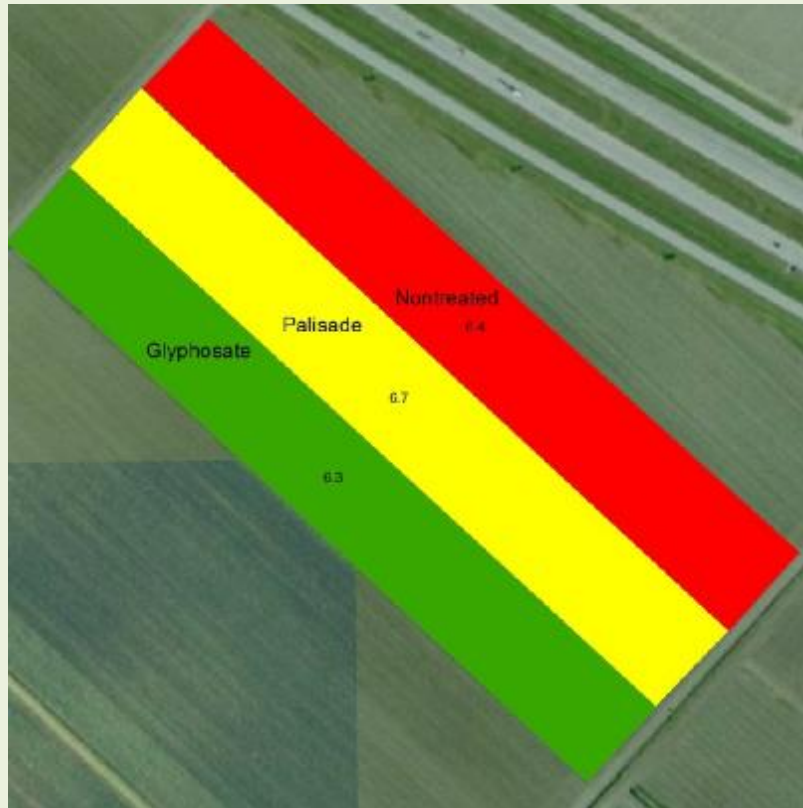
Hebert Brothers

Treatment	Acres Harvested	Mean TRS	Mean Tons/A	Sugar/A
Glyphosate	2.23	193	45.4	8777
Palisade (Moddus)	1.96	184	52.4	9628
Control	2.20	177	44.7	7917



Ronald Hebert

Treatment	Acres Harvested	Mean TRS	Mean Tons/A	Sugar/A
Glyphosate	2.77	210	35.2	7404
Palisade (Moddus)	2.52	203	39.1	7922
Control	2.91	190	32.8	6229



Combined Data Analyzed as a RCB

Treatment	TRS	% increase	Tons/A	Sugar/A
Glyphosate	201 a	10.2	42.4 b	8497 a
Palisade (Moddus)	190 b	4.9	47.9 a	9084 a
Control	182 c	--	42.4 b	7693 b
F-Value	0.0014		0.0251	0.0107



Coefficient of Variation

Study	Experiment	Stalk Weigh	Sugarcane Yield	TRS	Sugar Yield
		-----%-----			
Cultivar by Ripener	Gly and Trin Study	10.2	12.0	6.4	14.2
Cultivar by Ripener	Gly Study	13.2	15.0	5.7	16.8
Nitrogen by Ripener	Nitro by Ripr Study	10.7	38.6	7.5	40.7
Spray Vol. by Surf by Ripener	Bal 2nd-ratoon	10.9	25.0	2.7	24.7
Spray Vol. by Surf by Ripener	Bal Plant-cane	8.0	13.5	8.0	14.4
Spray Vol. by Surf by Ripener	Unbal 2nd-ratoon	11.1	7.5	2.6	23.0
Spray Vol. by Surf by Ripener	Unbla Plant-cane	8.2	11.9	8.0	13.7
	Average CV	10.3	17.6	5.8	21.1



Tropical Events

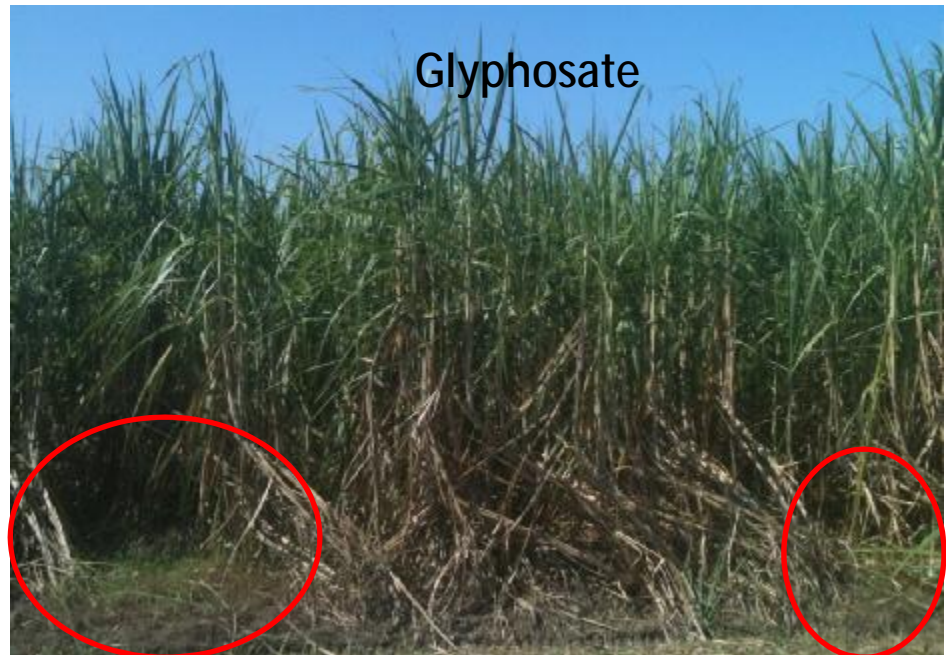
Tropical Event	Date
Hurricane Gustav	8/31/2008
Hurricane Ike	9/13/2008
T.S. Claudette	8/17/2009
T.S. Bonnie	7/25/2010
Tropical Depression 5	8/11/2010
T.S. Lee	9/06/2011
Hurricane Isaac	8/19/2012



What Happens Harvest is Delayed?

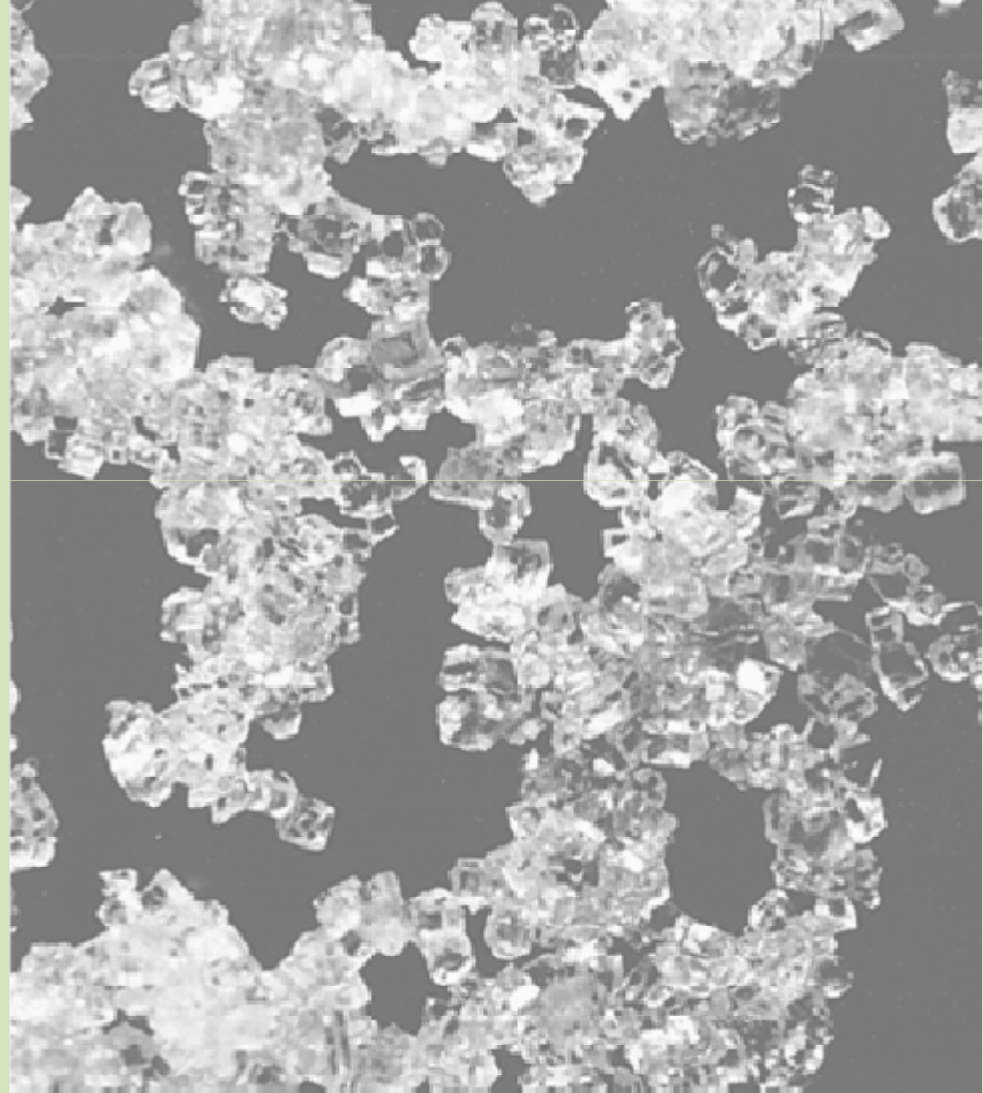
Blackberry Farms

Treatment	Harvest Interval	Acres Harvested	Mean TRS	Mean Tons/A	Sugar/A
Glyphosate	27	1.68	200	46.6	9311
Palisade (Moddus)	56	1.47	186	52.1	9703
Control		1.60	180	49.5	8934
Glyphosate	41	1.78	214	45.8	9811
Palisade (Moddus)	70	1.73	202	49.3	9959
Control		1.60	201	50.6	10143



THANKS

- Blackberry Farms
- Hebert Brothers Farms
- Ronald Hebert Farms
- Syngenta
- American Sugar Cane League for funding support



Questions ?

