A Review of 2019 Ripener Trials

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LSU AgCenter

Trial 1
Early Season Ripener

August 9th

The Crop was SHORT!!!

Trial 1
Early Season Ripener

August 9th

Sugar Research Station
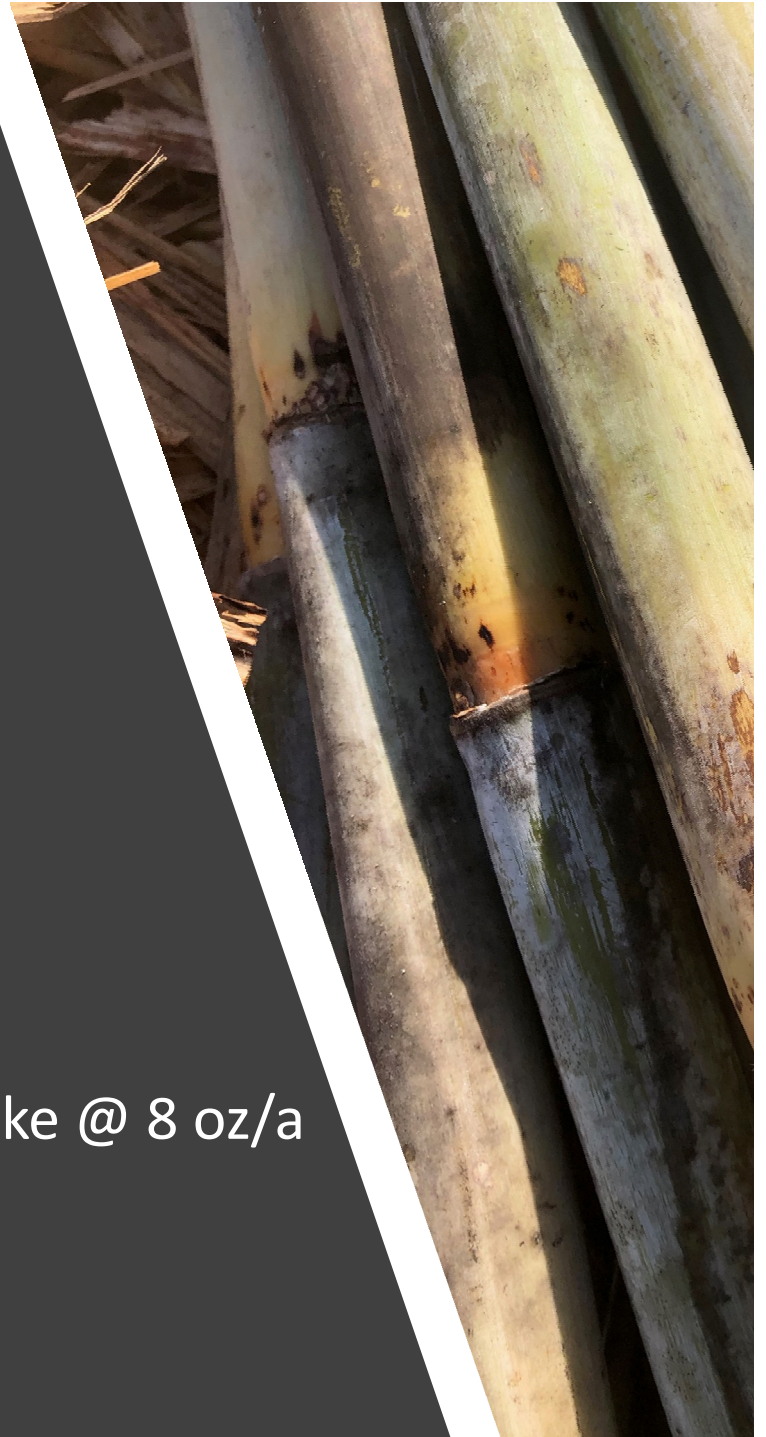
Plantcane L 01-299

Plot size: 12 ft X 60 ft

4 Replications

3 Treatments, RCB

  -Roundup PowerMaxII @ 6 oz/a

  -Roundup PowerMaxII @ 6 oz/a + Intake @ 8 oz/a

  -Untreated Check

Trial 1
Early Season Ripener

Hand sampled: **Days after treatment**

September 3   25

September 10   32

September 18   40

Treatment	TRS (lb/ton)		
	25 DAT	32 DAT	40 DAT
Check	140 b	161 b	170 b
P-MaxII	219 a	241 a	261 a
P-MaxII + Intake	211 a	246 a	258 a

Trial 1
Early Season Ripener

Treatment	% Fiber		
	25 DAT	32 DAT	40 DAT
Check	11.5 a	12.1 a	12.1 a
P-MaxII	10.8 ab	10.8 b	11.2 b
P-MaxII + Intake	10.4 b	10.9 b	11.5 b

Trial 1
Early Season Ripener

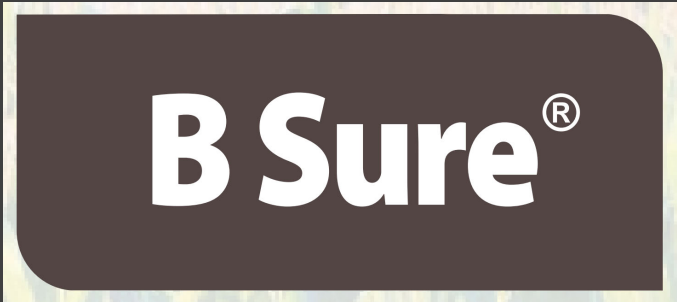| Treatment	Height (in)	Tons/A	Sugar/A
Check	99.5 a	38.3 a	6493 b
P-MaxII	77.9 b	31.9 b	8353 a
P-MaxII + Intake	78.6 b	30.4 b	7783 a

Trial 2
Ripener Additives

ANOVA 5-0-0

Intake

B Sure®

Trial 2
Ripener Additives
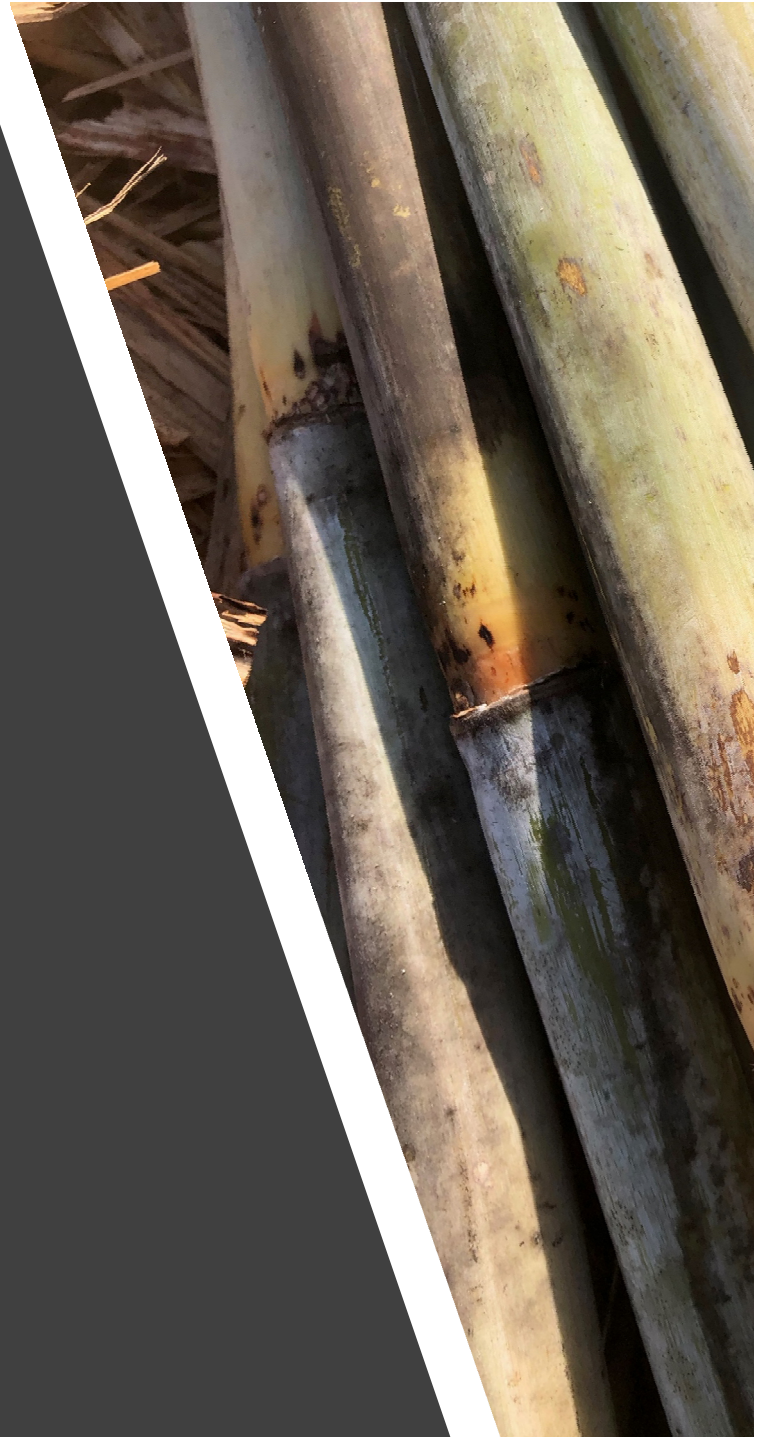
September 11th

Sugar Research Station

Plantcane L 01-299

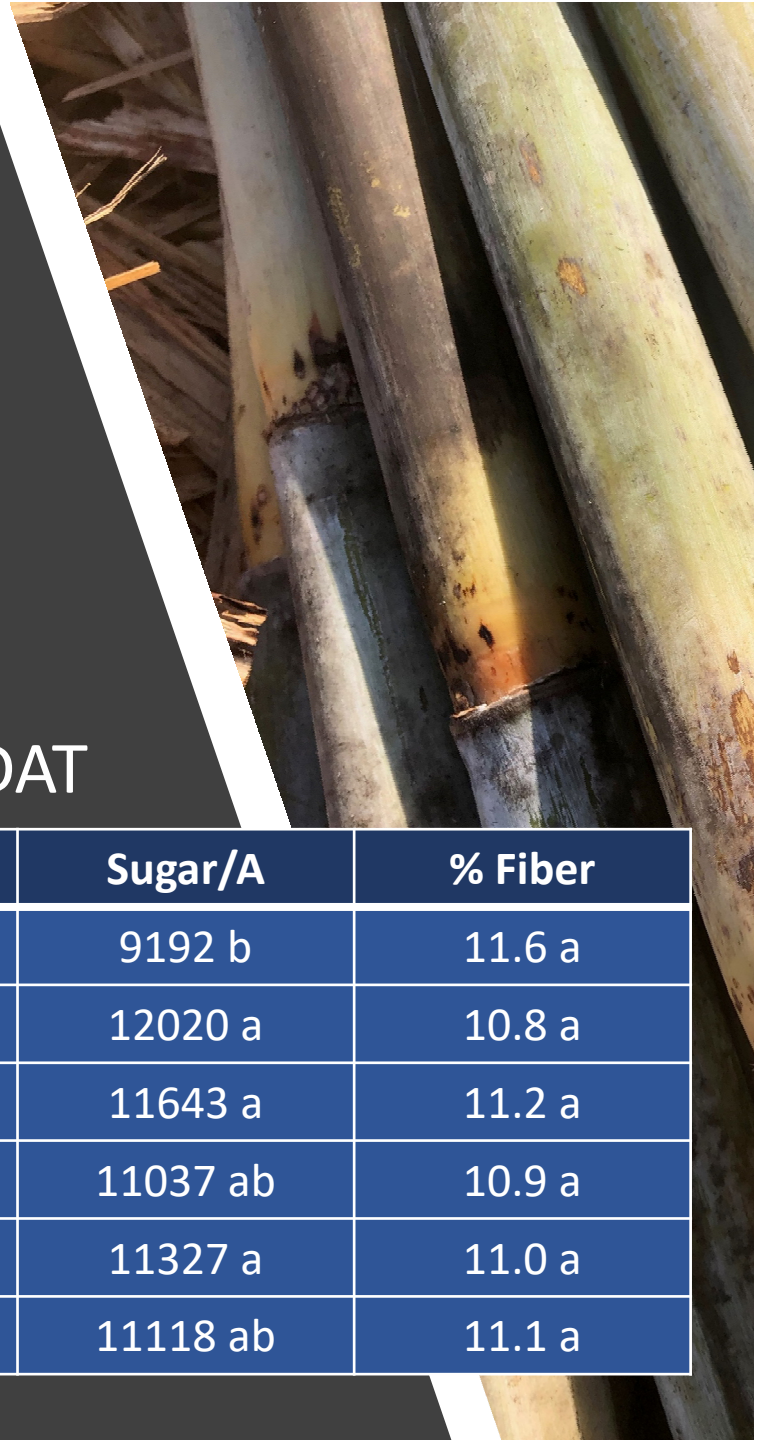Plot size: 12 ft X 40 ft

4 Replications

6 Treatments, RCB

Trial 2
Ripener Additives

Treatment	Rate/A
Untreated Check	
Roundup Power Max II	5.3 oz
Roundup Power Max II + Moddus	2.65 oz + 11 oz
Roundup Power Max II + Intake	5.3 oz + 8 oz
Roundup Power Max II + Anova	5.3 oz + 16 oz
Roundup Power Max II + B Sure	5.3 oz + 16 oz

Trial 2
Ripener Additives

Harvested: October 16th   35 DAT

Treatment	TRS (lb/ton)	Tons/A	Sugar/A	% Fiber
Check	189 c	48.7 a	9192 b	11.6 a
P-Max II	257 a	46.8 a	12020 a	10.8 a
P-Max II + Moddus	241 ab	48.2 a	11643 a	11.2 a
P-Max II + Intake	248 ab	44.5 a	11037 ab	10.9 a
P-Max II + Anova	246 ab	45.9 a	11327 a	11.0 a
P-Max II + B Sure	234 b	47.3 a	11118 ab	11.1 a

2019

Treatment	TRS (lb/ton)	Tons/A	Sugar/A	% Fiber
Check	189 c	48.7 a	9192 b	11.6 a
P-Max II	257 a	46.8 a	12020 a	10.8 a
P-Max II + Moddus	241 ab	48.2 a	11643 a	11.2 a
P-Max II + Intake	248 ab	44.5 a	11037 ab	10.9 a
P-Max II + Anova	246 ab	45.9 a	11327 a	11.0 a
P-Max II + B Sure	234 b	47.3 a	11118 ab	11.1 a

2018

Treatment	TRS (lb/ton)	Tons/A	Sugar/A	% Fiber
Check	180 b	47.3 a	7924 b	12.1 a
P-Max II	258 a	42.0 a	10861 a	12.1 a
P-Max II + Moddus	229 a	44.7 a	10237 a	12.3 a
P-Max II + Intake	244 a	44.0 a	10742 a	12.0 a
P-Max II + Anova	252 a	42.4 a	10668 a	11.9 a
P-Max II + B Sure	232 a	44.6 a	10312 a	11.9 a

Trials 3 and 4 Late-Season Ripened Cane Exposed to Freezing Conditions

Trial 3 - GNL Farms, Bachelor

Tractor, 2 X 30 ft plots

Trial 4 - H.E. Harper Farms, Cheneyville

Airplane, 12 rows wide X 1870 ft long, center 6 rows used to calculate yield (1.5 acre), 2 trucks

GNL Farm LLC

2 Treatments – Stubble L01-299, 4 Reps

Glyphosate @ 7 oz/a

Non-treated Check

Treated 10-22-2019

H.E. Harper Farms ANOVA Trial

3 Treatments – First Stubble L01-299, 3 reps

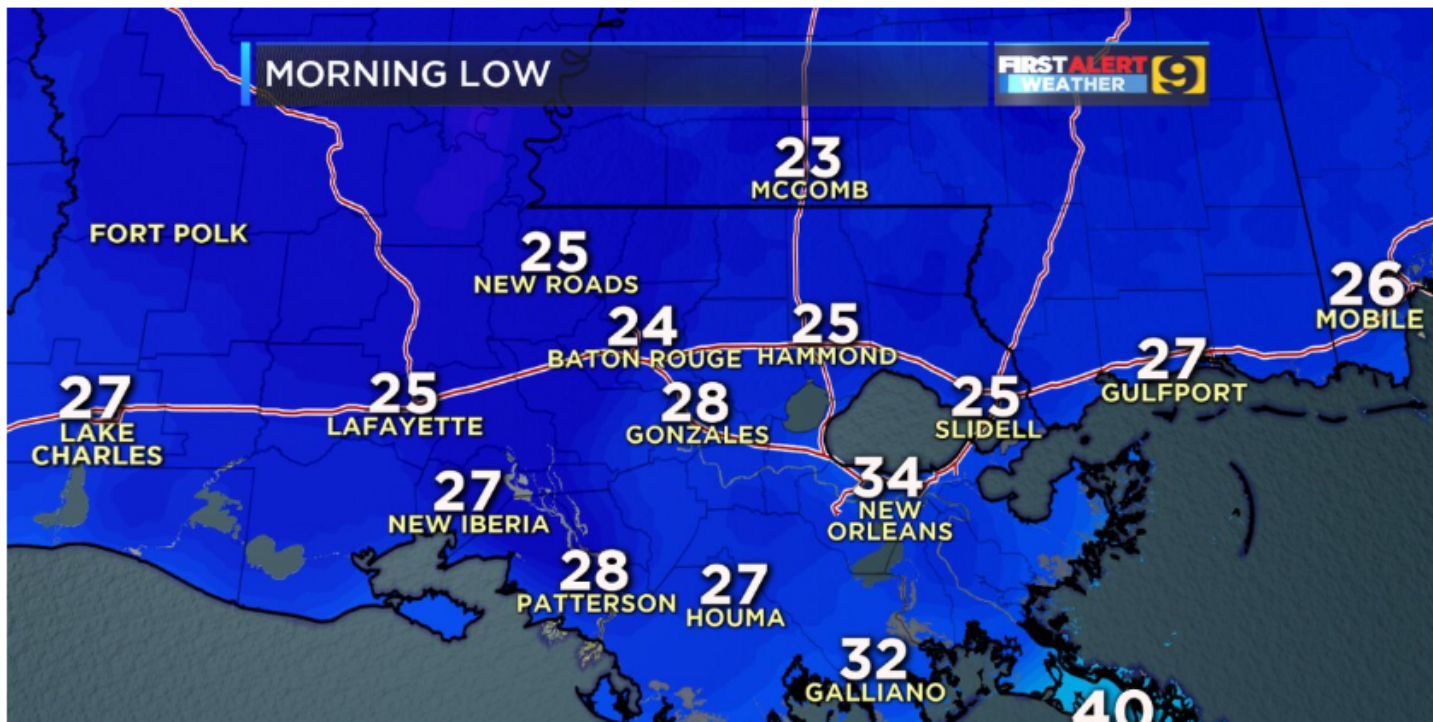   Glyphosate @ 7 oz/a

   Glyphosate @ 7 oz/a + Anova @ 16 oz/A

   Non-treated Check

Treated 10-18-2019

November 13, 2019

Wednesday's low temps break 112-year record

MORNING LOW

FIRST ALERT WEATHER 9

23 MCCOMB

FORT POLK

25 NEW ROADS

24 BATON ROUGE

25 HAMMOND

26 MOBILE

27 LAKE CHARLES

25 LAFAYETTE

28 GONZALES

25 SLIDELL

27 GULFPORT

27 NEW IBERIA

34 NEW ORLEANS

28 PATTERSON

27 HOUMA

32 GALLIANO

40

Temperatures as low as 24 degrees in Baton Rouge broke a record set in 1907. (Source: WAFB)

November 13, 2019

GNL trial had ripener on for 21 days prior to the freeze

Hand cut samples were gathered 6 and 19 days after the freeze

Harper trial had ripener on for 25 days prior to the freeze

Hand cut samples were gathered 7 and 20 days after the freeze

Data was pooled from the two experiments

P-Max

Check

Parameters Evaluated
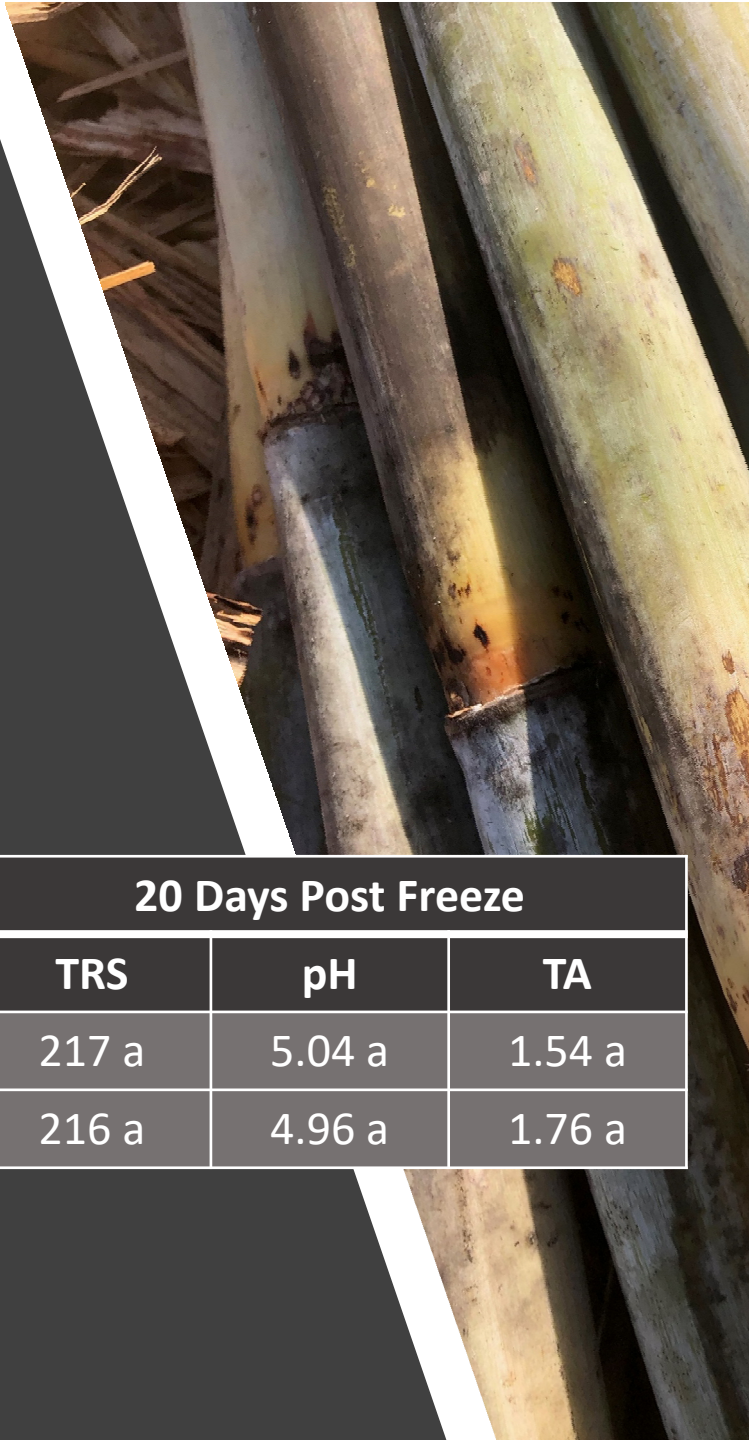
TRS
Juice pH
Titratable acidity

Parameters Evaluated

TRS
Juice pH
Titratable acidity

Treatment	7 Days Post Freeze			20 Days Post Freeze		
	TRS	pH	TA	TRS	pH	TA
Check	238 a	5.39 a	1.59 a	217 a	5.04 a	1.54 a
Glyphosate	238 a	5.38 a	1.74 a	216 a	4.96 a	1.76 a

Alternative Ripeners

Trial 5
Alternative Ripener

September 12th, Sugar Research Station
First Stubble L 01-299, Plot size: 6 ft X 40 ft,
3 Treatments, RCB, 4 Reps

-Roundup PowerMaxII @ 5.3 oz/a
-Select @ 5.5 oz/a (96 g ai/ha)
-Untreated Check

Treatment	TRS (lb/ton)	
	27 DAT	42 DAT
Check	174 b	206 b
P-MaxII	203 a	244 a
Clethodim	161 b	197 b

Summary

- Despite the short crop in August, glyphosate ripener increased TRS and Sugar Yield per Acre

- Cane Tonnage, TRS, and Sugar Yield was not improved for the ripener additives evaluated as compared to the standard glyphosate application.

- TRS, juice pH, and titratable acidity was no different in 3 week ripened cane as compared to non-ripened cane.

- Our goal is to identify a glyphosate alternative ripener and a manufacture willing to invest into gaining a sugarcane label.

Questions