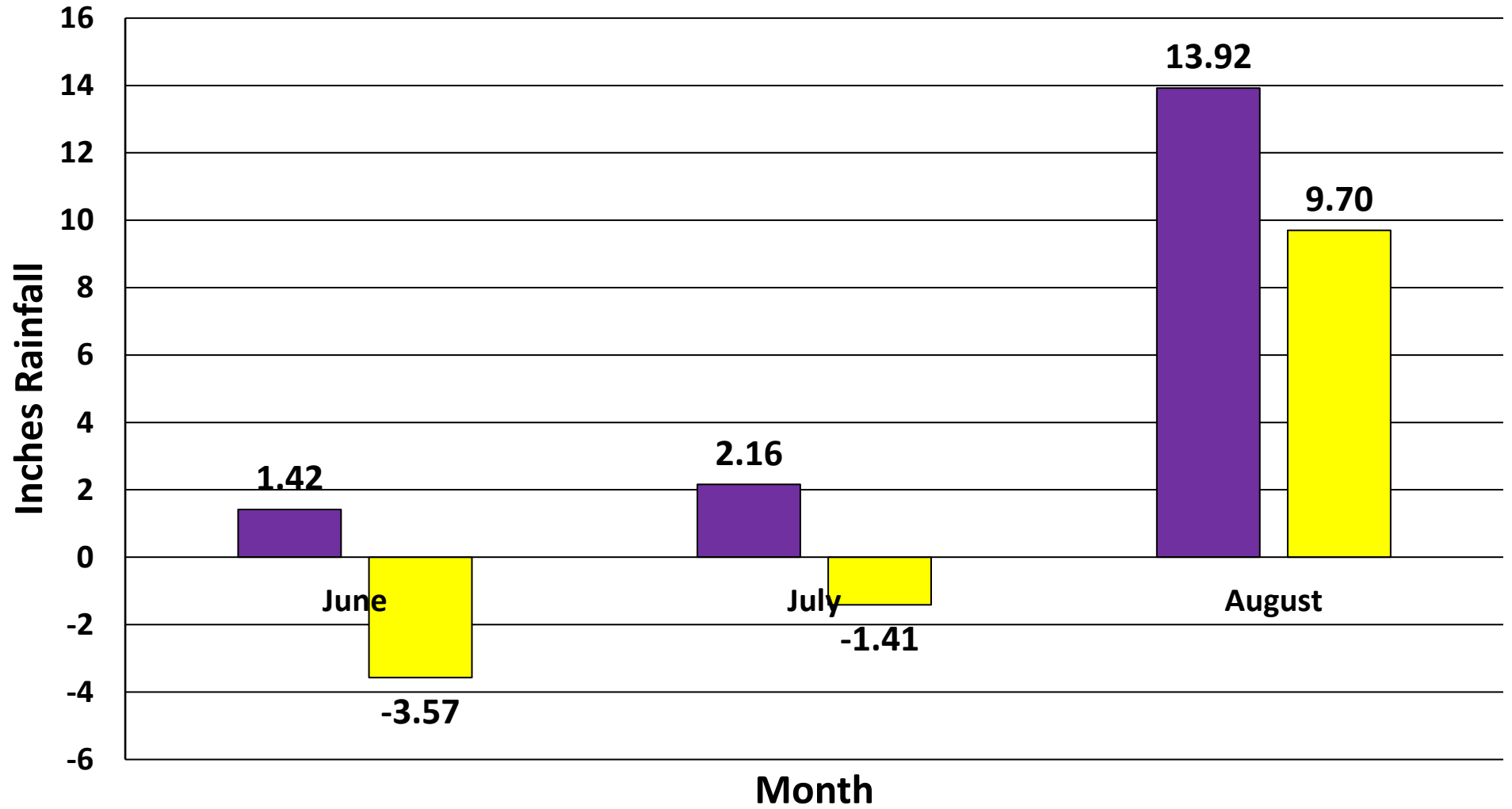


# 2022 Louisiana Sugarcane Crop Summary

Kenneth Gravois

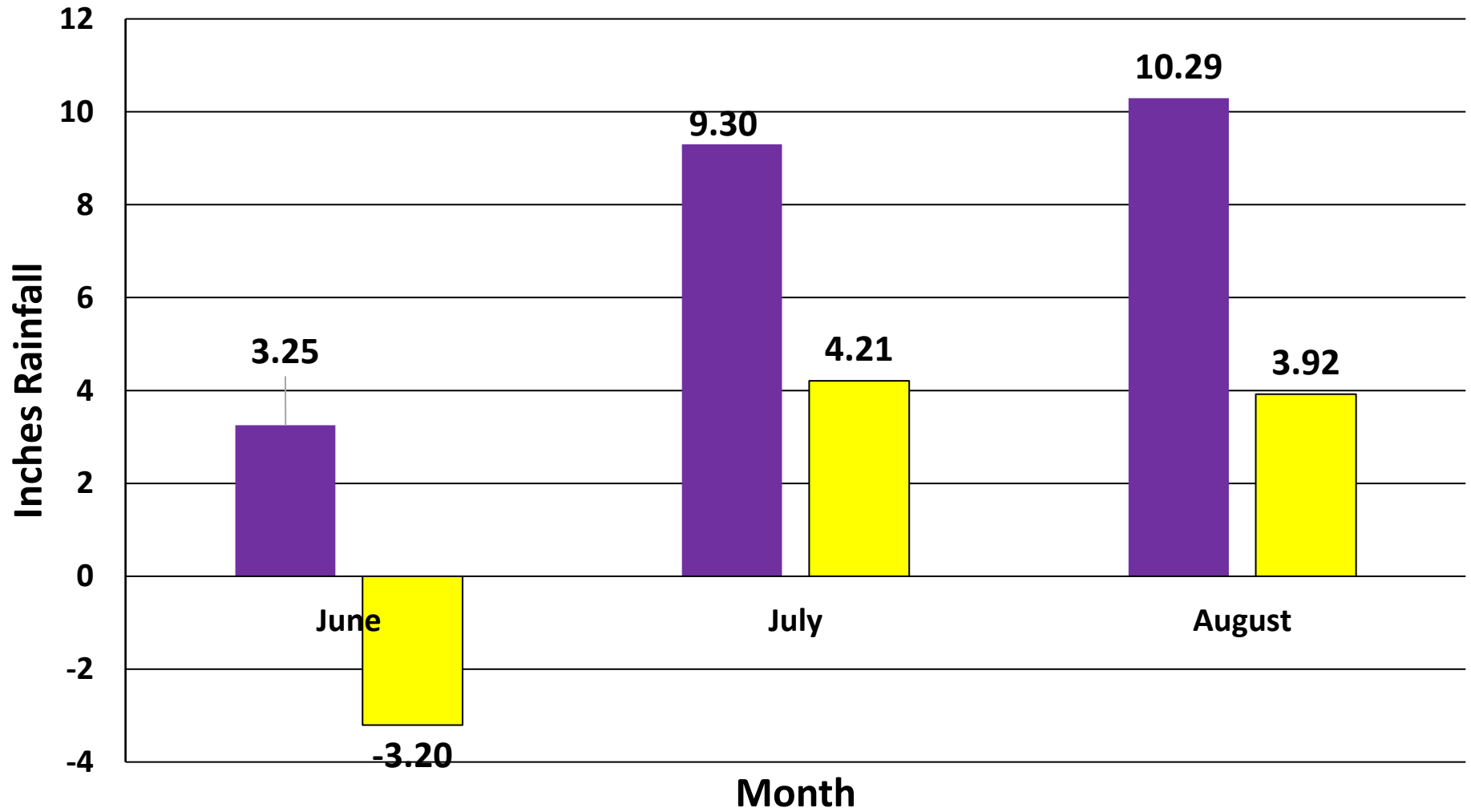


# Alexandria



■ Rainfall    ■ Departure from Normal

# Baton Rouge



■ Rainfall    ■ Departure from Normal



# HoCP 14-885 at Planting

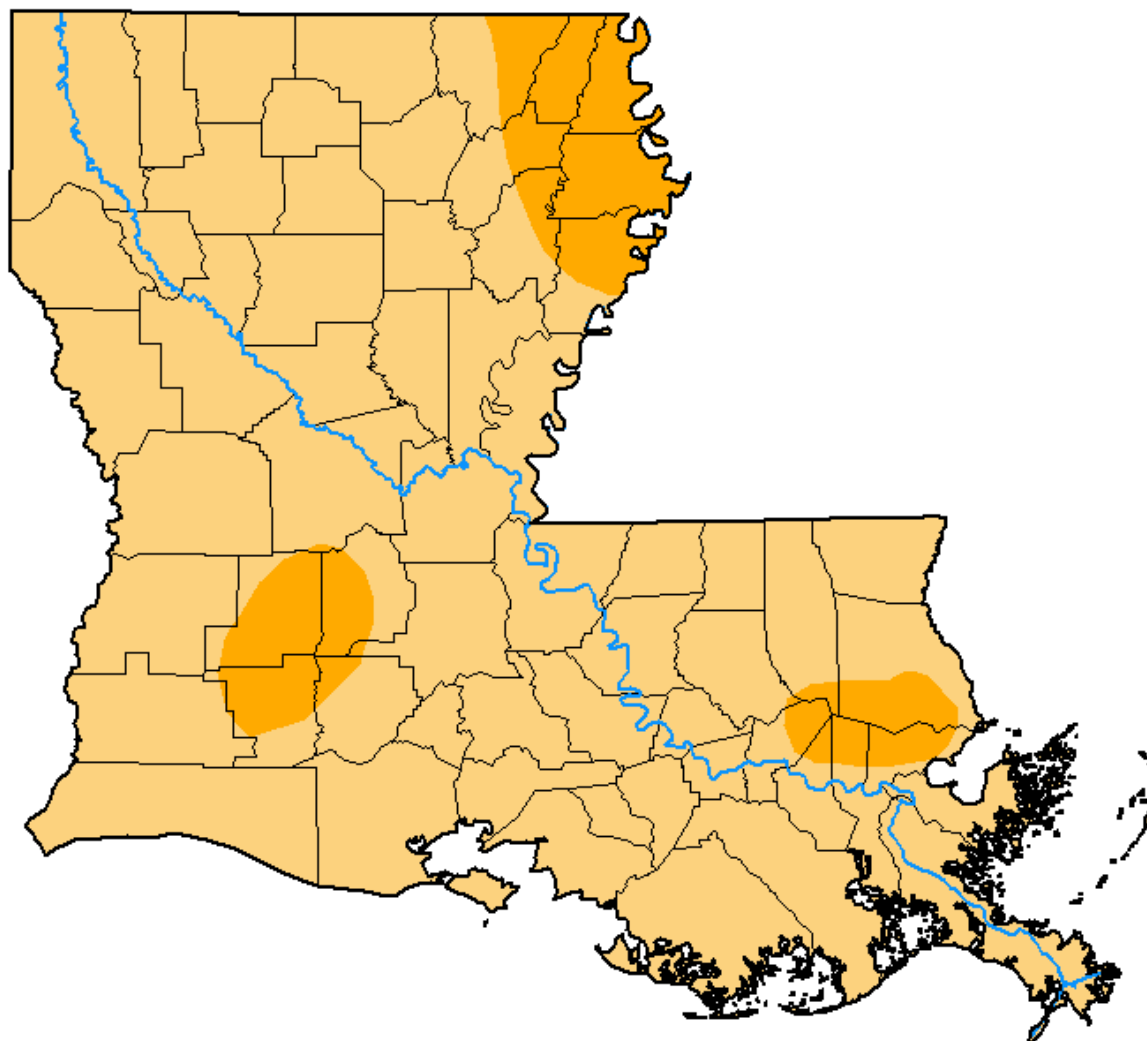




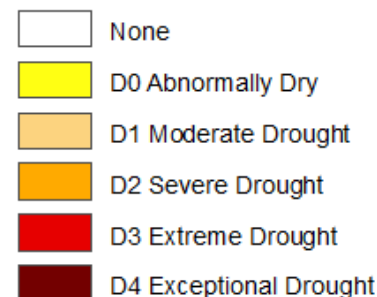
# U.S. Drought Monitor

## Louisiana

**October 25, 2022**  
(Released Thursday, Oct. 27, 2022)  
Valid 8 a.m. EDT



### Intensity:



*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>*

### Author:

Adam Hartman  
NOAA/NWS/NCEP/CPC



[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)





**Dry Weather & Replanting**



Gary and Laurent Gravois succession planting on October 12, 2022.





December 1, 2022



October 12, 2022







# 2022 Christmas Freeze – Field Perspective

**Kenneth Gravois**

**Moderate Juice Purity  
with High TRS  
First week of October  
ave. for all mills**

	2022	2021	2020
<b>Fiber (%)</b>	<b>12.73</b>	<b>13.76</b>	<b>13.65</b>
<b>Juice Brix (%)</b>	<b>18.59</b>	<b>17.43</b>	<b>17.75</b>
<b>Juice Pol (%)</b>	<b>15.52</b>	<b>14.88</b>	<b>14.96</b>
<b>Juice Purity (%)</b>	<b>83.48</b>	<b>85.84</b>	<b>84.32</b>
<b>Molasses gallons/ton</b>	<b>7.06</b>	<b>5.50</b>	<b>6.18</b>
<b>Theoretical Rec. Sugar (TRS)</b>	<b>230</b>	<b>220</b>	<b>222</b>



# SUGAR JOURNAL

Vol. 2

NOVEMBER, 1939

No. 6

## Problems and Progress In Breeding Temperate Zone Sugar Cane

By E. W. BRANDES and JULIUS MATZ

Among the objectives in the improvement of sugarcane varieties for use in the southeastern United States including Louisiana and Florida are rapid growth during the cool, early part of the season and greater tolerance of cold in the harvest season. An early start in growth is advantageous not only to insure greater yields at harvest but to advance the "lay-by" date and thus economize on hoeing. Greater tolerance of cold is, of course, desirable to retard inversion of sugar, particularly in standing cane in years when the infrequent, early visitations of frost occur.

# Fletcher Bubenzer (October 28) – Bunkie

Date	Temperature
October 19	31
October 20	33
November 13	34
November 14	34
November 18	28
November 19	35



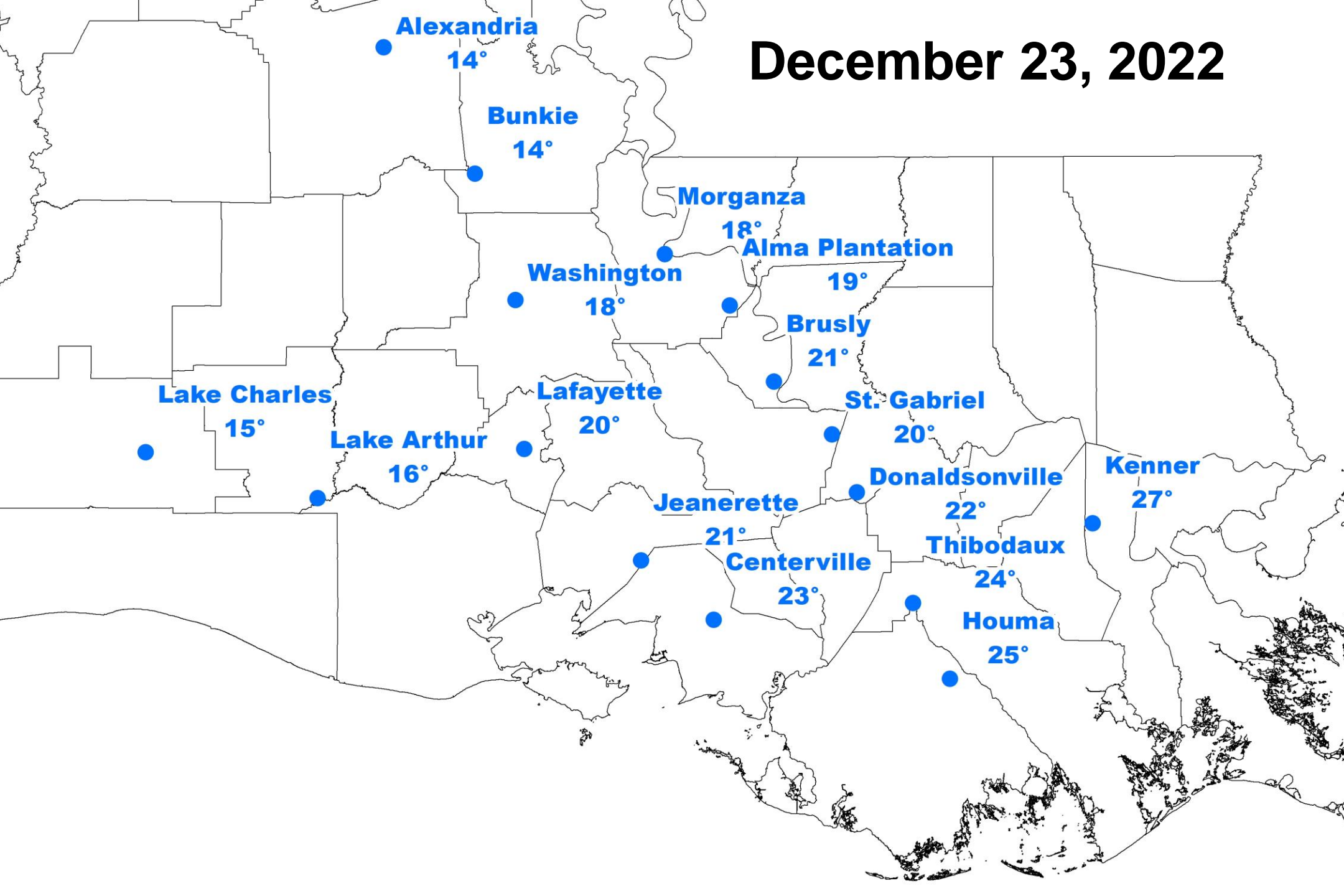




**December 5, 2022**



# December 23, 2022



## Best Management Practices following a Freeze in Sugarcane

Kenneth Gravois and Herman Waguespack

A severe freeze is forecasted beginning on December 23, 2022, and for a series of nights afterwards. At the time of the December 23<sup>rd</sup> freeze, the industry will be about 83% harvested. All sugarcane remaining in the industry will be damaged to some extent. Every freeze event is different and forecasting the extent that harvest can be completed is impossible. Deterioration following a freeze is temperature dependent – higher temperatures will increase deterioration and lower temperatures will reduce deterioration.

Stalks have peaked in sugar content and will begin to slowly dehydrate. Any stalk damage, whether by freezing temperatures, borer injury, growth cracks, brittleness, harvester, or mill yard equipment, will allow bacteria to enter the stalk to begin the deterioration process. The goal is to reduce the impact of deterioration by following the guidelines below.

The advanced stage of harvest and the severity of the forecasted freeze will limit the impact of some guidelines.

It is important that **growers and processors work together** to minimize the impact of this freeze.

**High quality cane supply.** Cane that is as free of mud, deteriorated tops and stalks, and other trash will help processing at the mill. Gums, acids, and other breakdown products will negatively affect crystallization at the mill. When mills can no longer crystallize sugar, the factory closes. **A high-quality cane supply is the key for extending the processing season following a freeze.**

- **Do not panic.** The industry has experienced freezes in past years and successfully completed the harvest. There will be losses - to what extent is unknown.
- **Varieties make a difference** when temperatures are above 22 F. However, temperatures below 22 F kill all above ground parts of commercial varieties. L 11-183, L 12-201, Ho 12-615 and HoCP 14-885 have poor cold tolerance and should be harvested first. Intermediate varieties L 01-299, HoCP 09-804, Ho 13-739, L 14-267, L 15-306 and HoL 15-508 may last longer. HoCP96-540, L 01-283 and HoCP 04-838 are varieties with the best cold tolerance.

# Best Advice

Cut cane

Clean cane

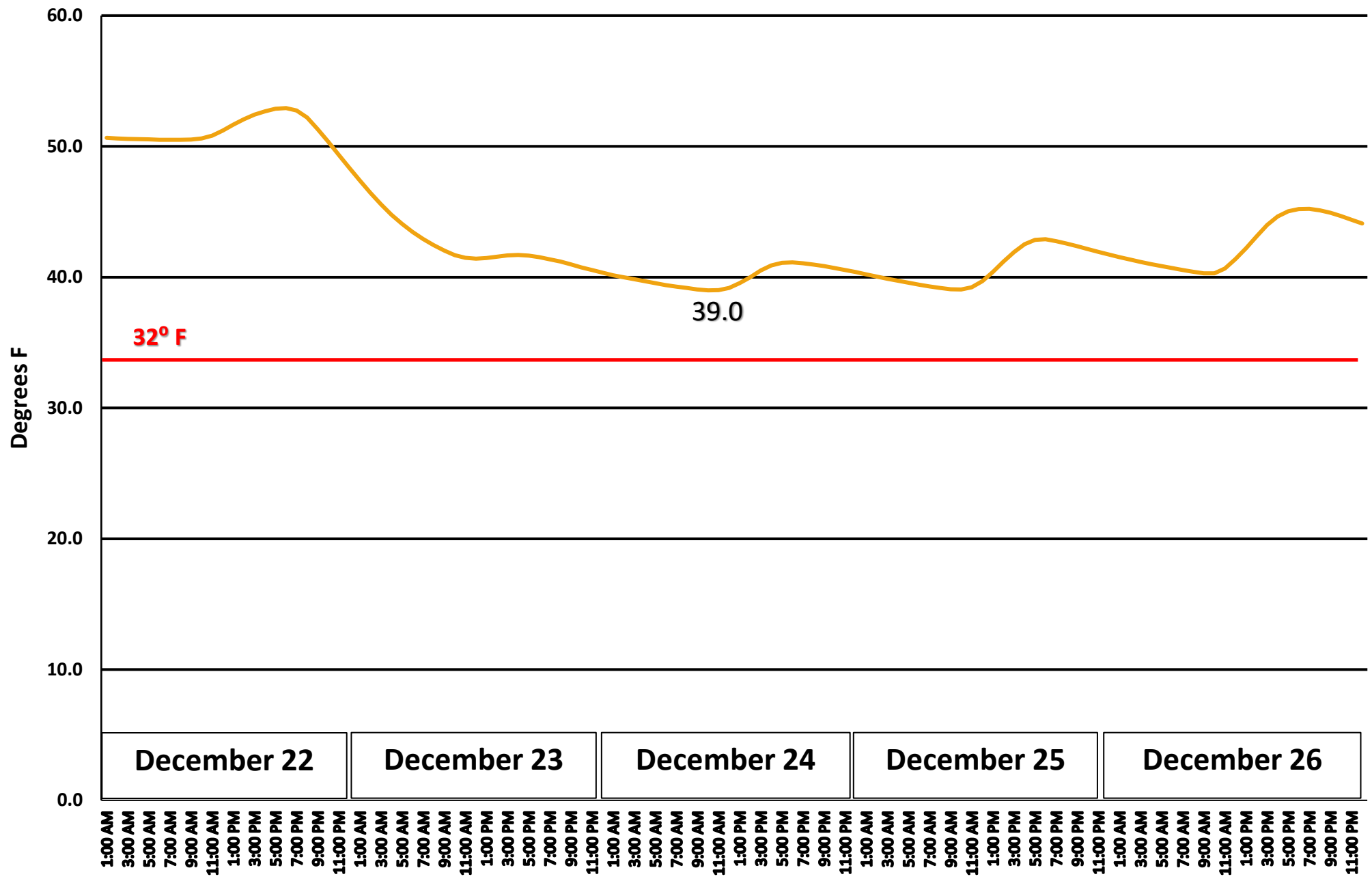
So the mill can grind  
cane

Rinse and Repeat



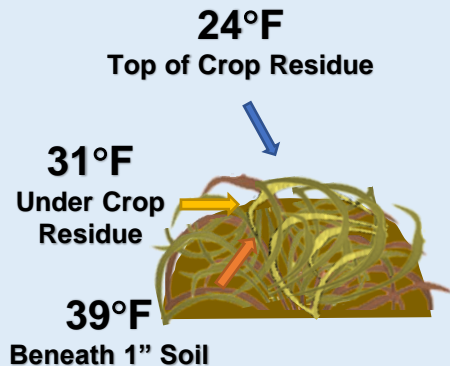
Soil Temperature (4")

# Dean Lee - Alexandria

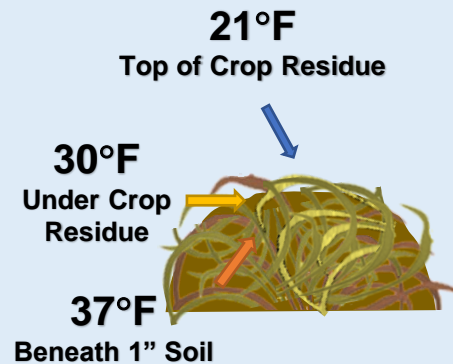


# Minimum Temperatures - USDA, ARS Ardoyne Farm Field with Cut Cane and a Trash Blanket Data Collected by Dr. Paul White

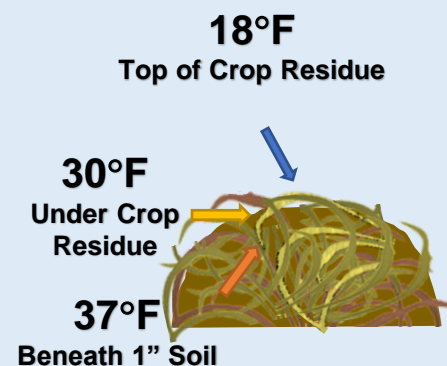
12/23



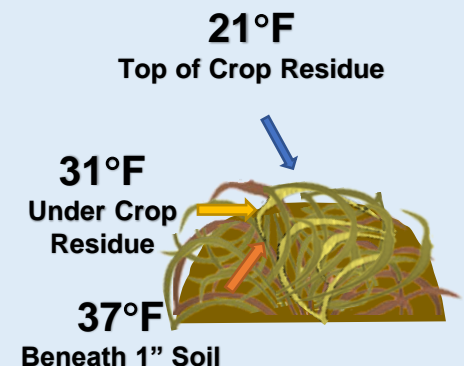
12/24



12/25



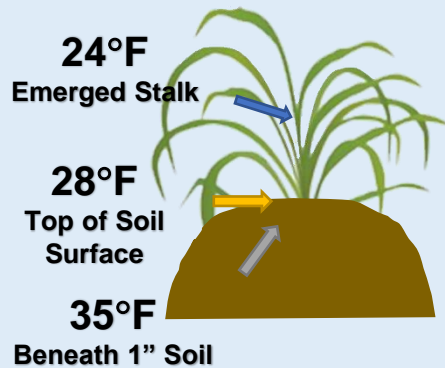
12/26



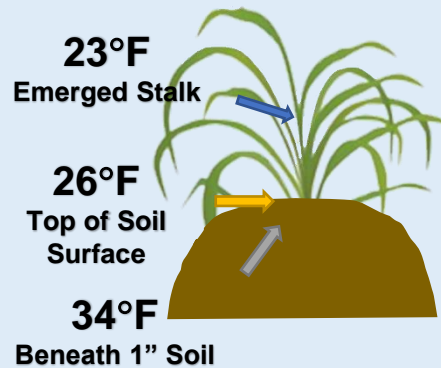
Artist: Mavis Daigle

# Minimum Temperatures USDA, ARS Ardoyne Farm Field with Planted Cane Data Collected by Dr. Paul White

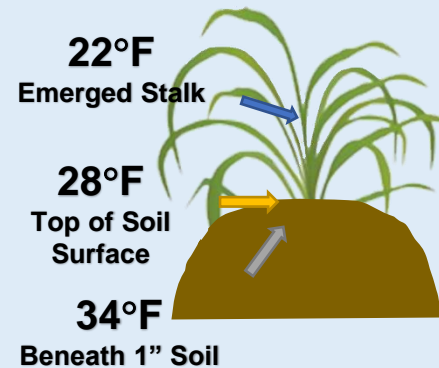
12/23



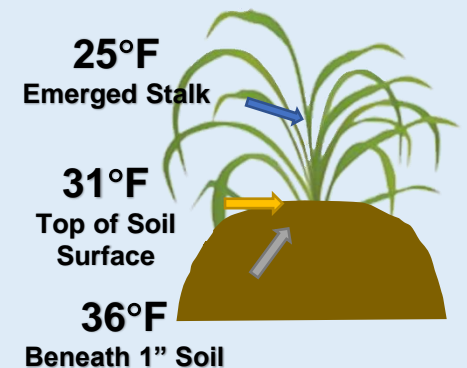
12/24



12/25



12/26

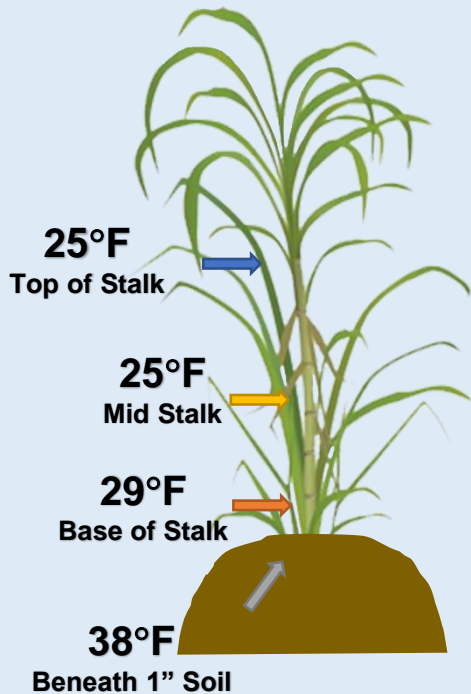


Artist: Mavis Daigle

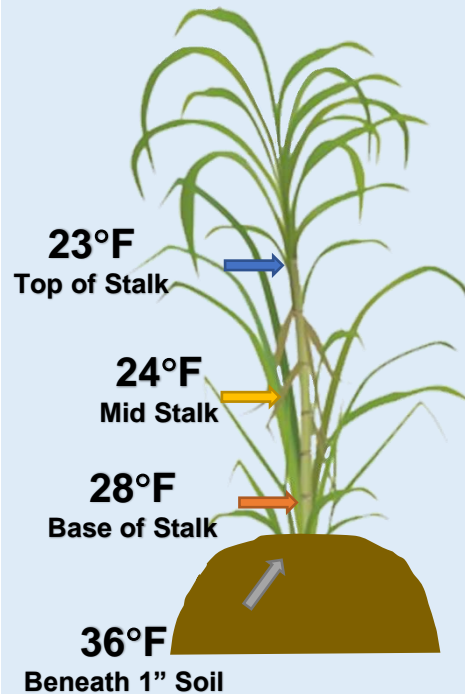


# Minimum Temperatures USDA, ARS Ardoyne Farm Field with Standing Cane Data Collected by Dr. Paul White

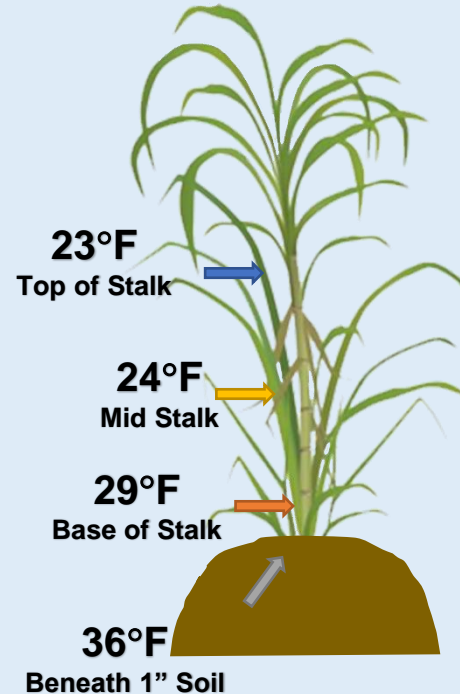
12/23



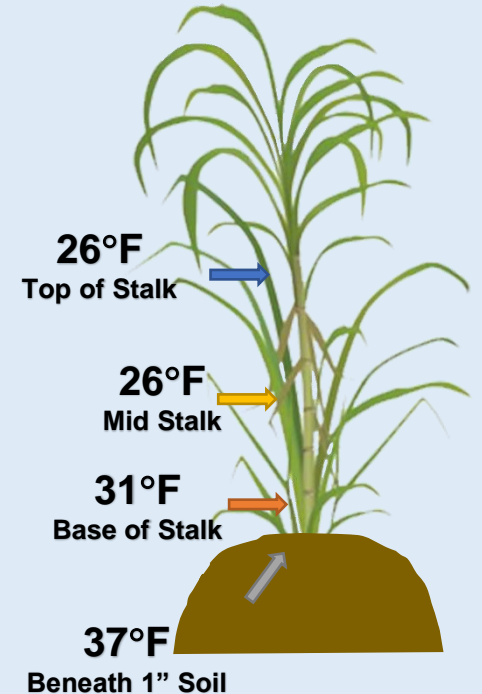
12/24



12/25



12/26



Artist: Mavis Daigle

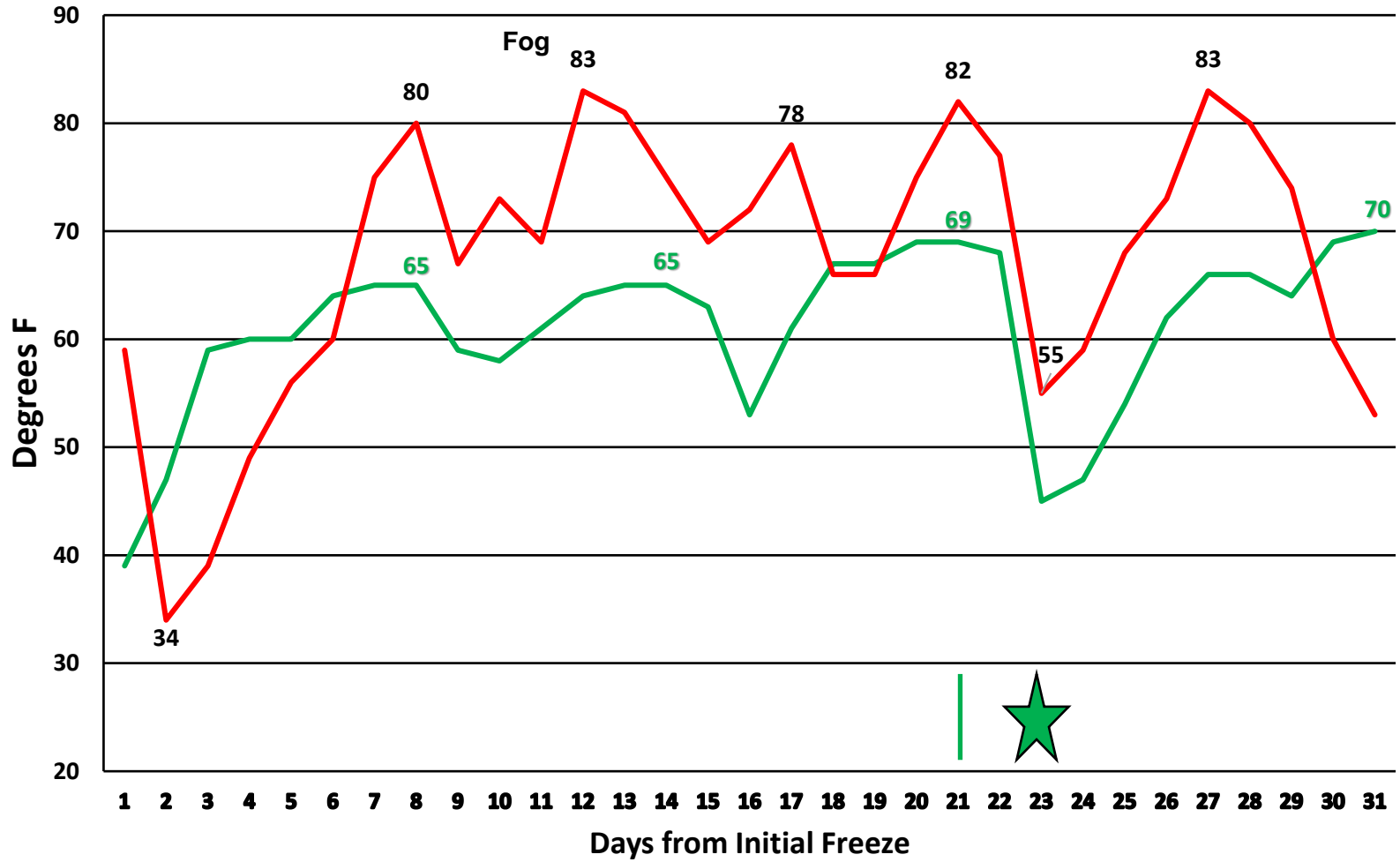


## Temperatures

- **19° F St. Gabriel**
- **20° F Brusly**

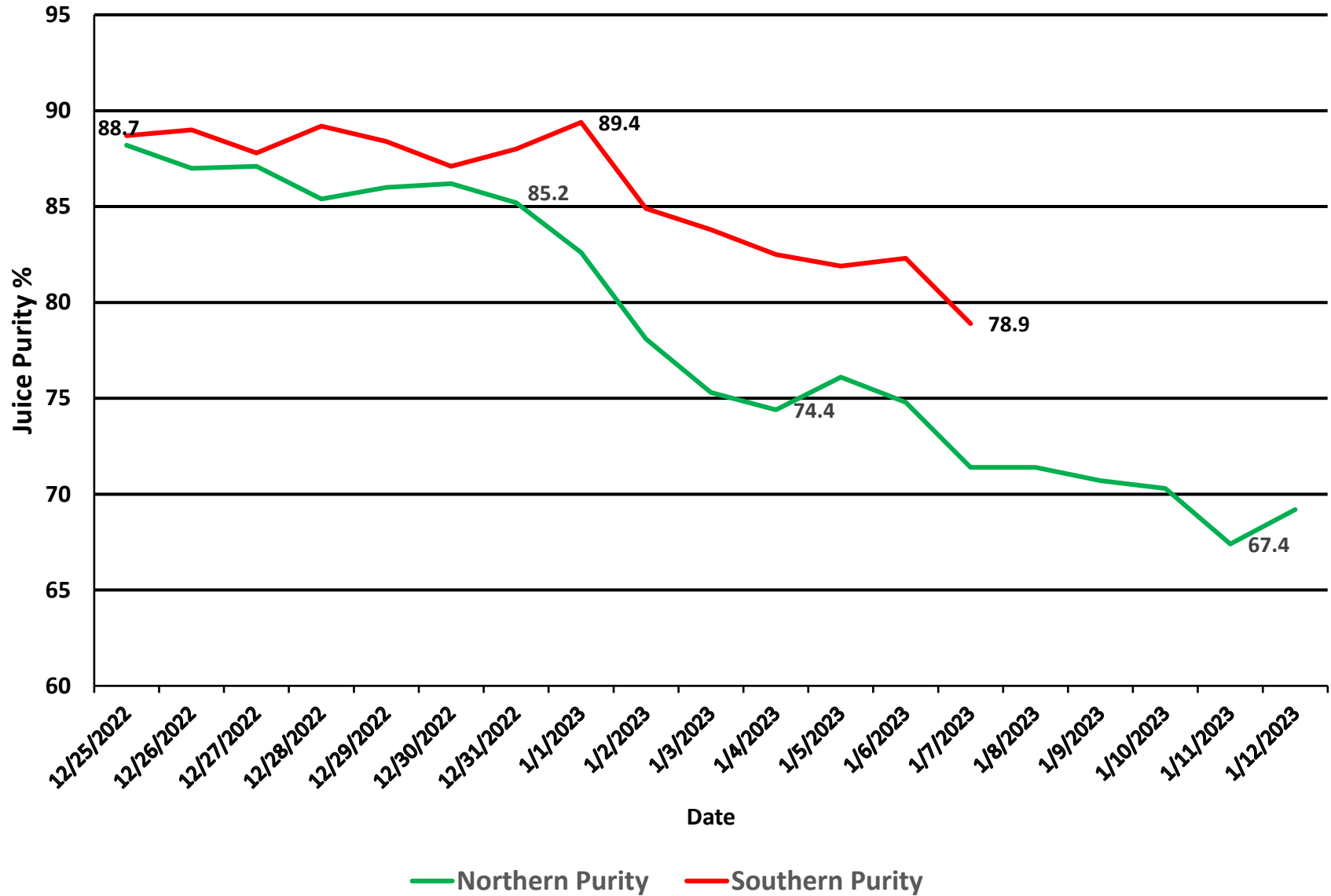


# Daily Maximum Temperature



— 1976-Maximum    — 2022-Maximum

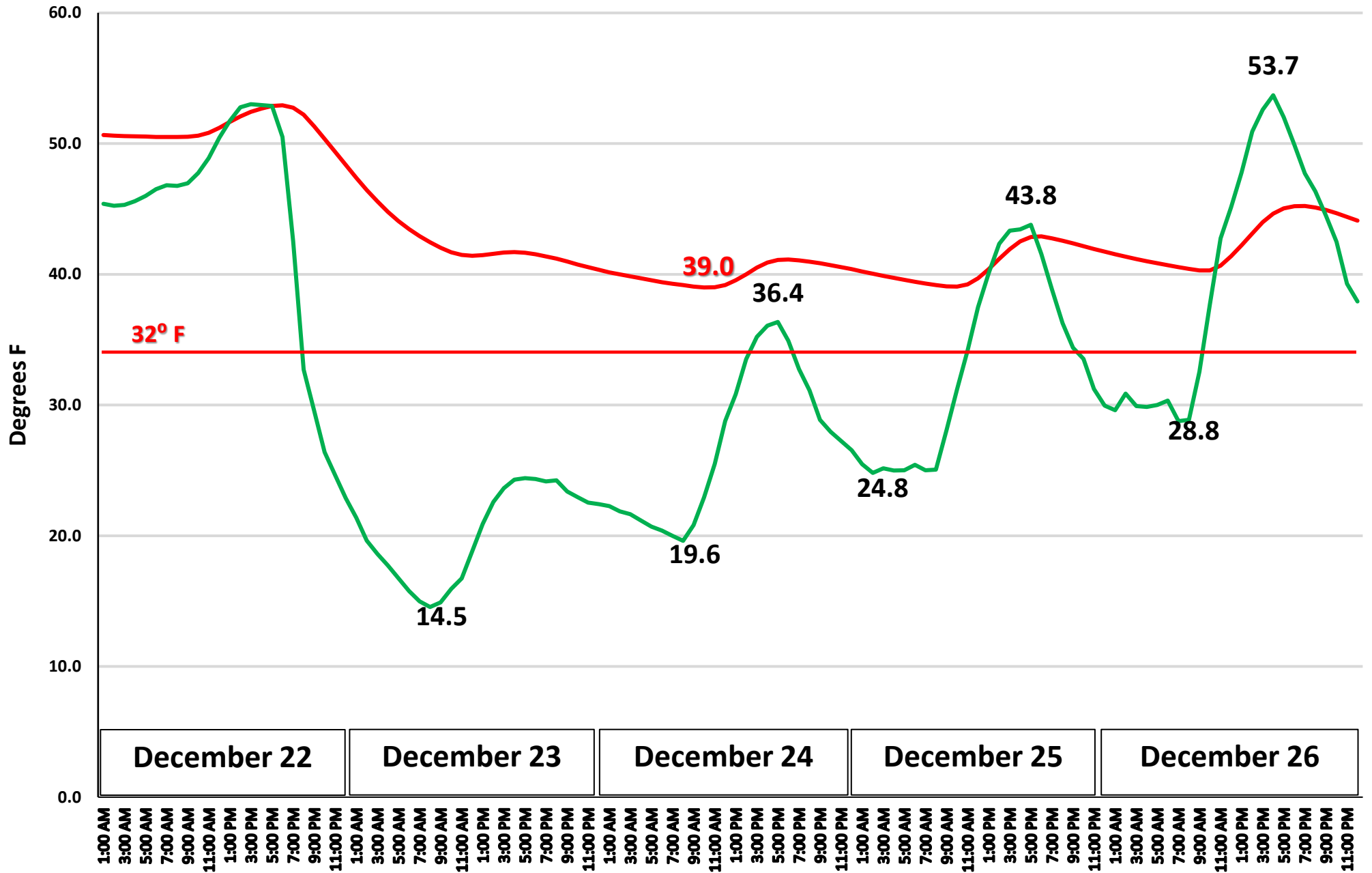
### Juice Purity – North vs. South





Soil Temperature Air Temperature

### Dean Lee - Alexandria



# December 23-26 Freeze

## BATON ROUGE LOW TEMPS



First time since Jan. 8-11, 2010 with  
4 straight mornings at/below 25°

Only the 9th such streak since 1930





# Variety Performance









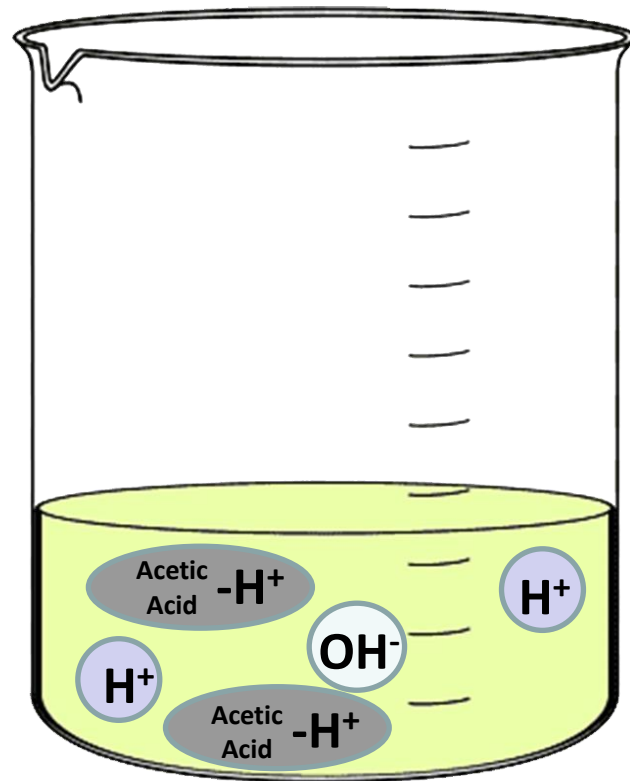
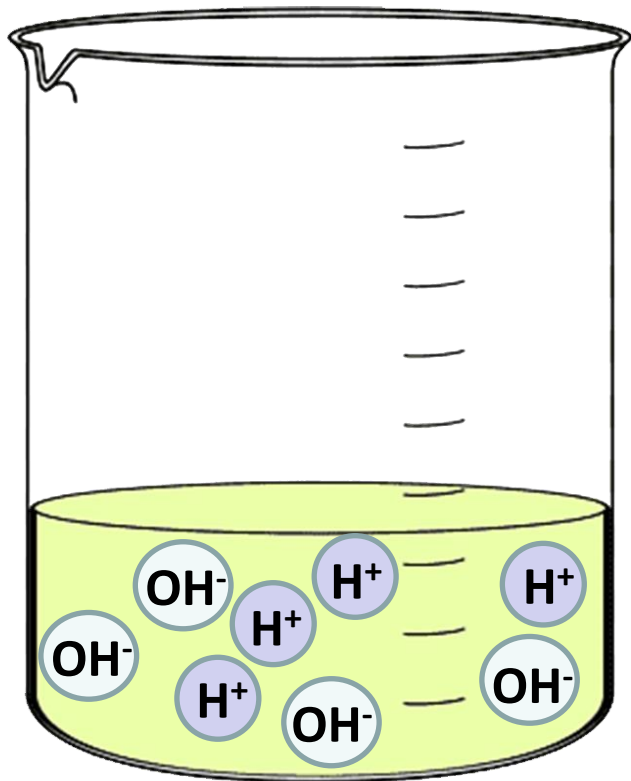
- **10 Varieties**
- **Four replications**
- **Sampled**
  - **Dec. 22**
  - **Dec. 30**
  - **Jan. 6**
  - **Jan 13**
  - **Jan 20**



# What do we measure in a cold tolerance trial?

<b>Trait</b>	<b>Unit</b>
<b>Juice Purity</b>	<b>%</b>
<b>TRS</b>	<b>lbs/ton of cane</b>
<b>pH</b>	<b>active acidity</b>
<b>Titratable Acidity</b>	<b>ml 0.1 normal NaOH per 10 ml juice (passive acidity)</b>
<b>Dextran (polysaccharides)</b>	<b>ppm/Brix</b>





## January 10, 2023 – Ryan Viator

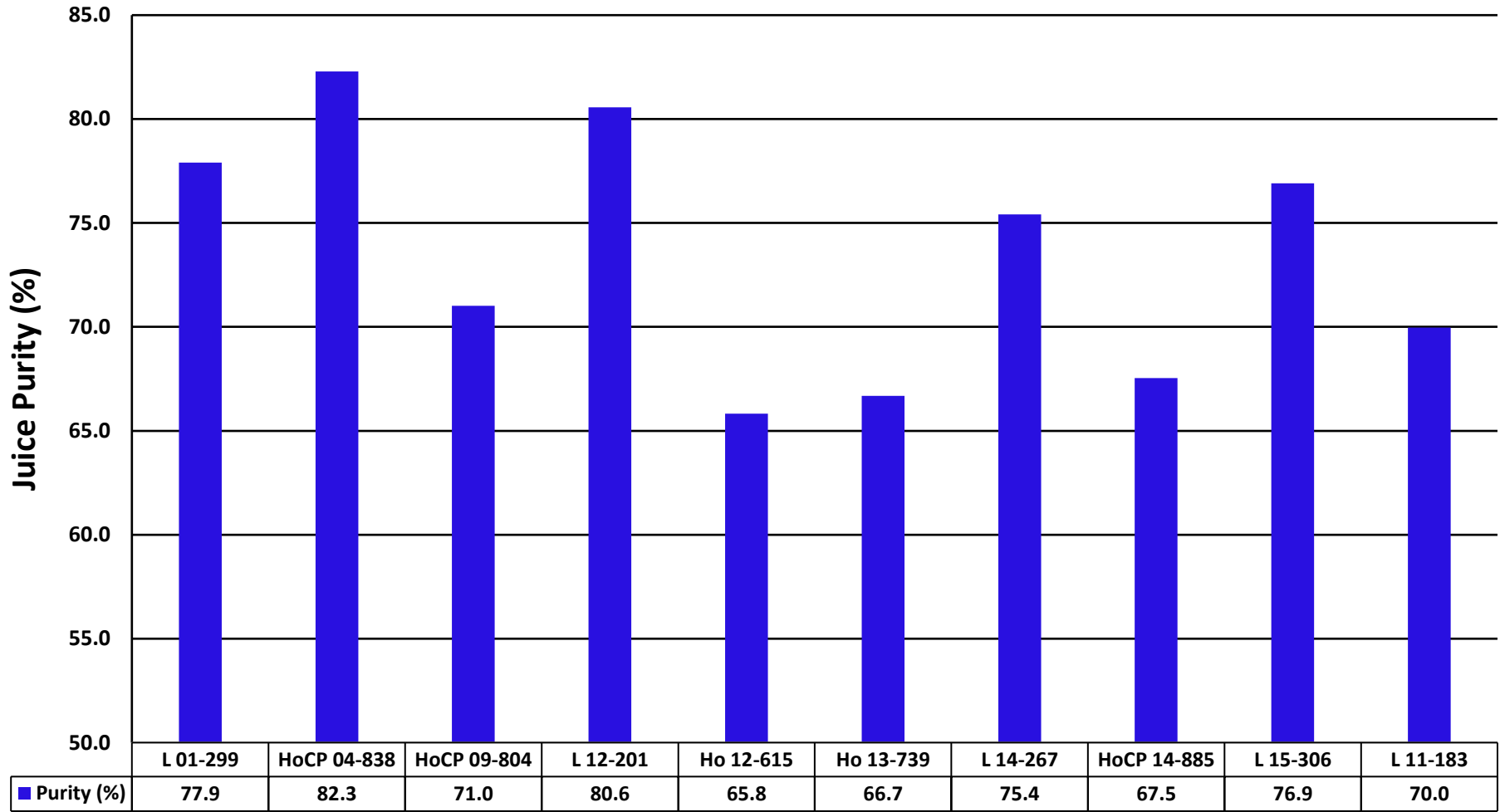
<b>Variety</b>	<b>pH</b>	<b>Brix</b>	<b>Purity</b>
<b>L01-299</b>	<b>4.0</b>	<b>18.0</b>	<b>72.9</b>
<b>HoCP09-804</b>	<b>3.8</b>	<b>17.1</b>	<b>67.5</b>
<b>L01-283</b>	<b>3.9</b>	<b>16.2</b>	<b>67.7</b>



## January 10, 2023 – Ryan Viator

<b>Variety</b>	<b>pH</b>	<b>Brix</b>	<b>Purity</b>
<b>L01-299</b>	<b>4.0</b>	<b>18.0</b>	<b>72.9</b>
<b>HoCP09-804</b>	<b>3.8</b>	<b>17.1</b>	<b>67.5</b>
<b>L01-283</b>	<b>3.9</b>	<b>16.2</b>	<b>67.7</b>

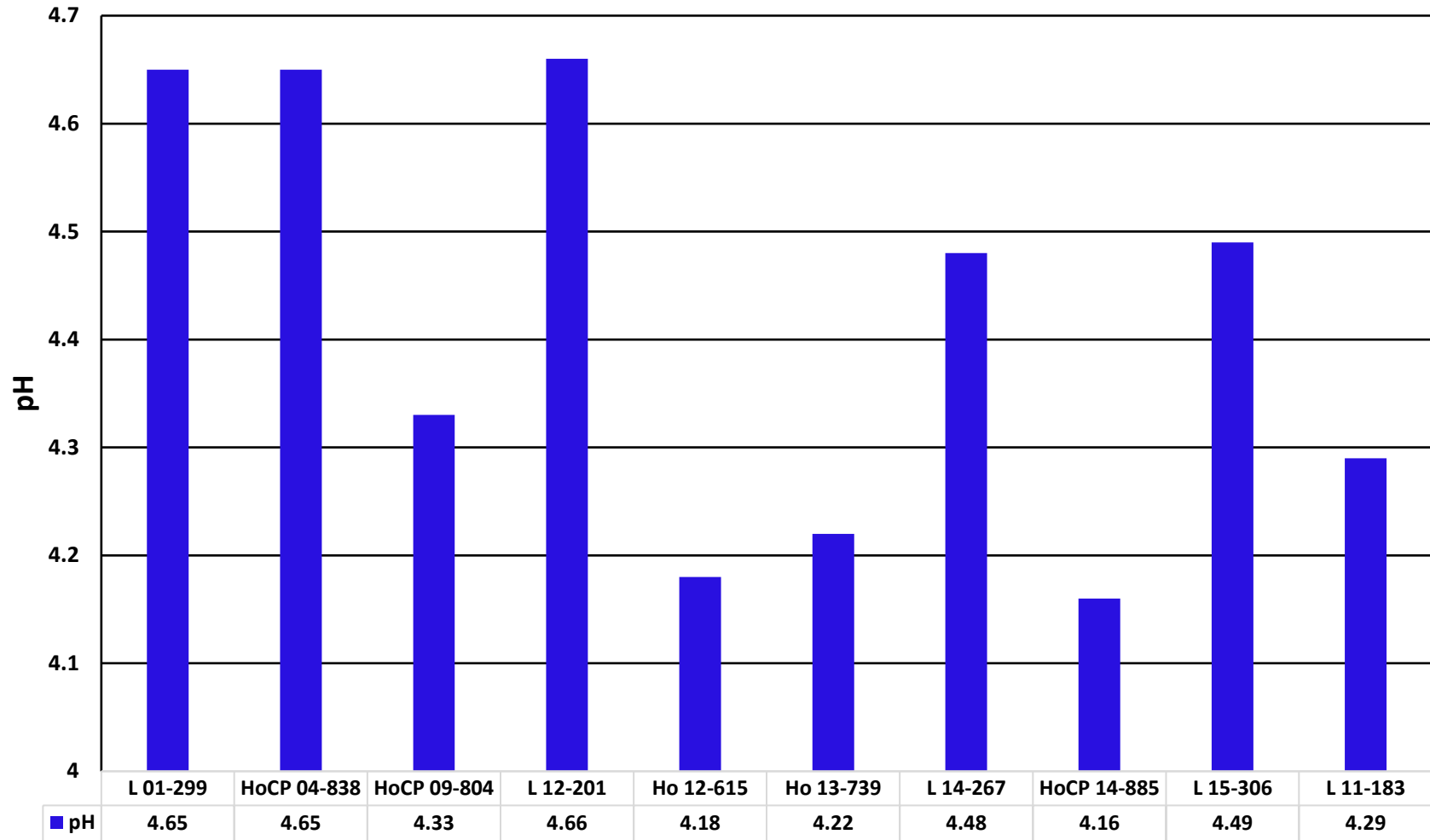
Purity (%) on January 20, 2023



■ Purity (%)

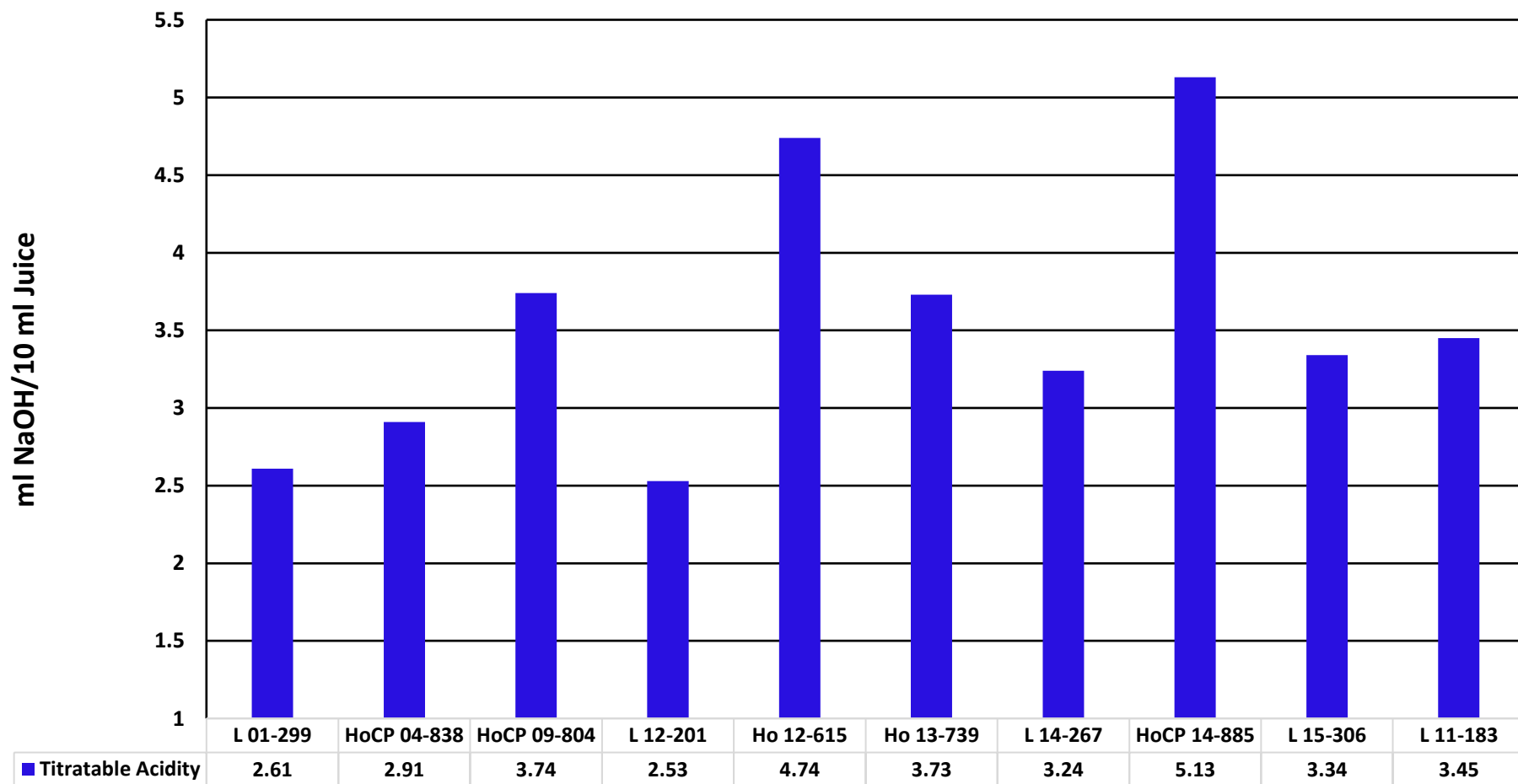


pH on January 20, 2023



■ pH

### Titratable Acidity (ml 0.1 N NaOH/10 ml Juice) – January 20, 2023

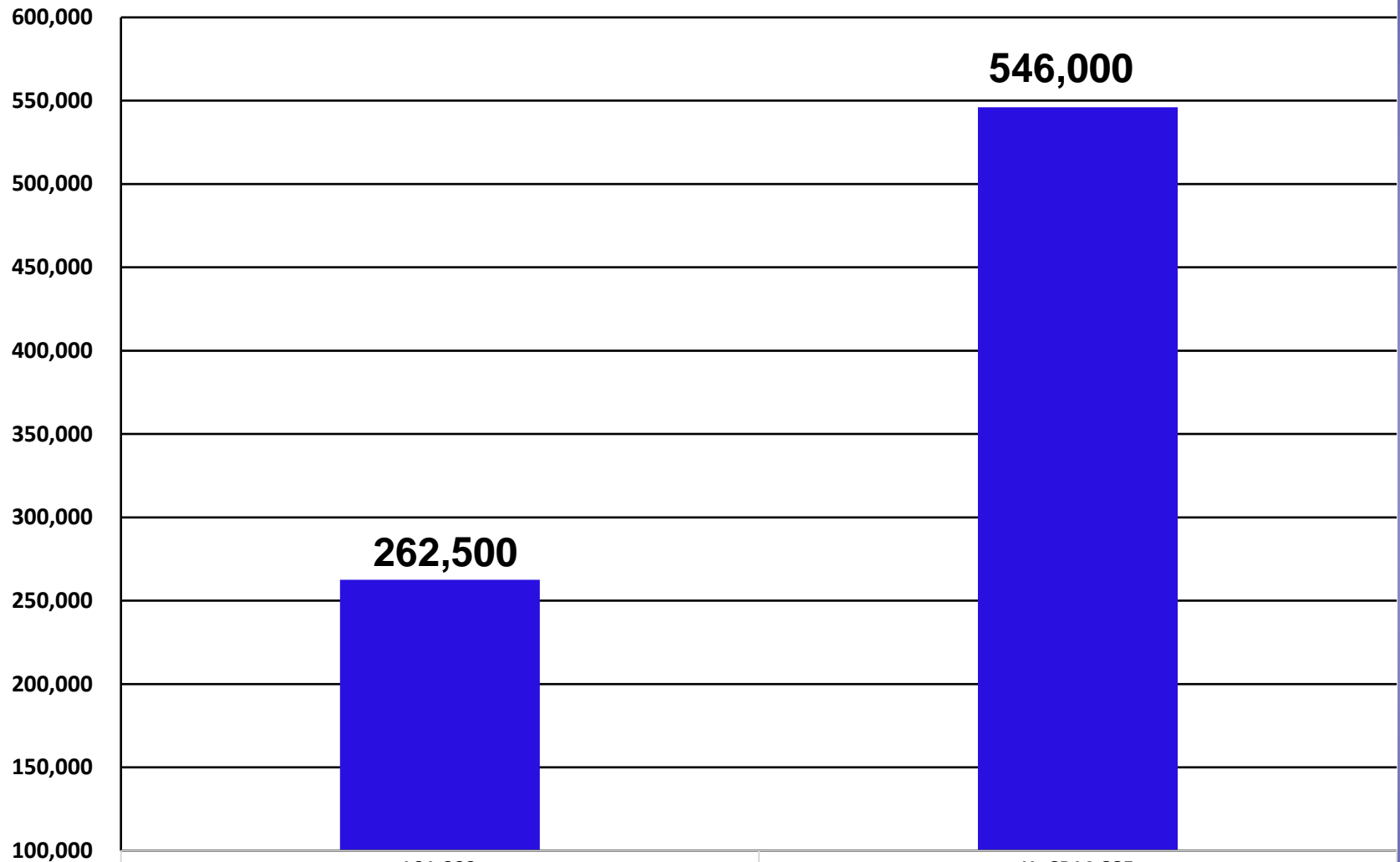


Axis Title

■ Titratable Acidity



### Tons of 0.1 N NaOH to Neutralize the Acidity



■ Tons of 0.1 N NaOH

L01-299

262,500

HoCP14-885

546,000

# Cold Tolerance Ratings

Variety	Cold Tolerance Category		Relation to LCP85-384
HoCP96-540	GOOD		Child
L01-299	MODERATE		Child
HoCP04-838	GOOD		Child
HoCP09-804	MODERATE		Grandchild
L11-183	MODERATE		Child
L12-201	POOR		Grandchild
Ho12-615	POOR		Grandchild
Ho13-739	MODERATE	GOOD	Grandchild
L14-267	MODERATE		Grandchild
HoCP14-885	MODERATE	POOR	Great Grandchild
L15-306	MODERATE		Grandchild
HoL15-508	MODERATE		Grandchild



# Cold Tolerance Reactions

Variety	Cold Tolerance Category		2022-23 Cold Tolerance	
HoCP96-540	Good		Good	
L01-299	Moderate		Better	
HoCP04-838	Good		Good	
HoCP09-804	Moderate		Moderate	
L11-183	Moderate		Better	
L12-201	Poor		Better	
Ho12-615	Poor		Poor	
Ho13-739	Moderate	Good	Poor	Moderate
L14-267	Moderate		Moderate	
HoCP14-885	Moderate	Poor	Poor	
L15-306	Moderate		Moderate	
HoL15-508	Moderate		Moderate	





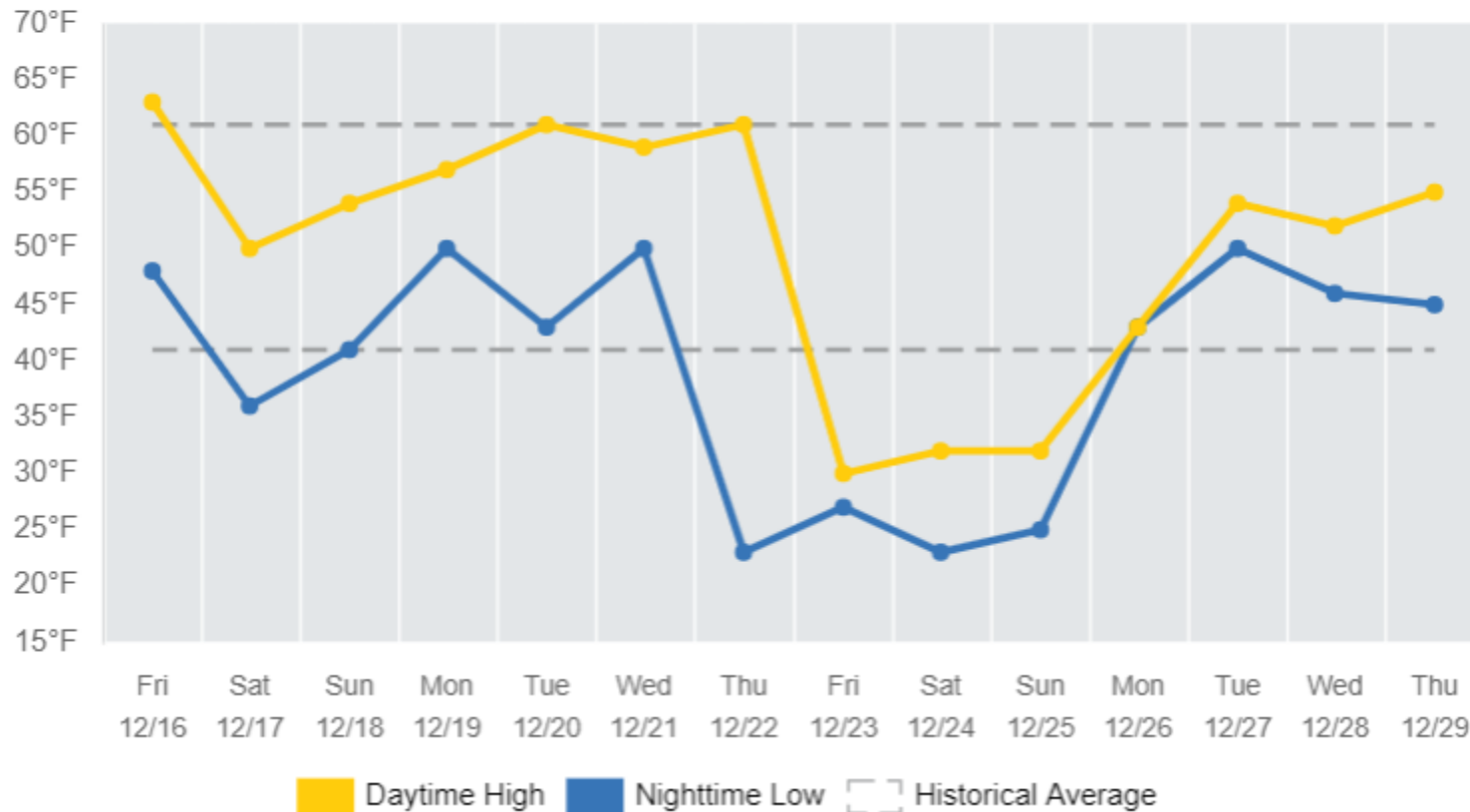
# December 15<sup>th</sup> forecast

## Saint Gabriel, LA Weather

[+](#) ADD TO MY LOCATIONS

### 14 Day Trend

Here is your temperature trend for the next 14 Days. To see the daily forecast, scroll to the table below.



December 23, 2022



© WWW.FREEWORLDMAPS.NET

# January 7, 2023 – Comments from Ronnie Gonsoulin

- CP 89-2143 has decent cold tolerance
- Ripener has positive effect for maintaining stalk integrity after the freeze, L 12-201



# Fletcher Bubbenzer-late October and early November freeze





# Florida Freeze Damage 2022





January 10, 2023 – Cane in Vacherie





# August 1954, Dissertation E.D. Paliatseas

with only a few varieties being grown in the subtropical areas of Northern India, South Africa, Egypt, and Louisiana. With the development of new seedling varieties, derived from crossing Noble sugarcanes with more hardy wild species and forms, it became evident that a number of those varieties could be grown further into subtropical areas and could be subjected to a considerable degree of frost. From a commercial standpoint,





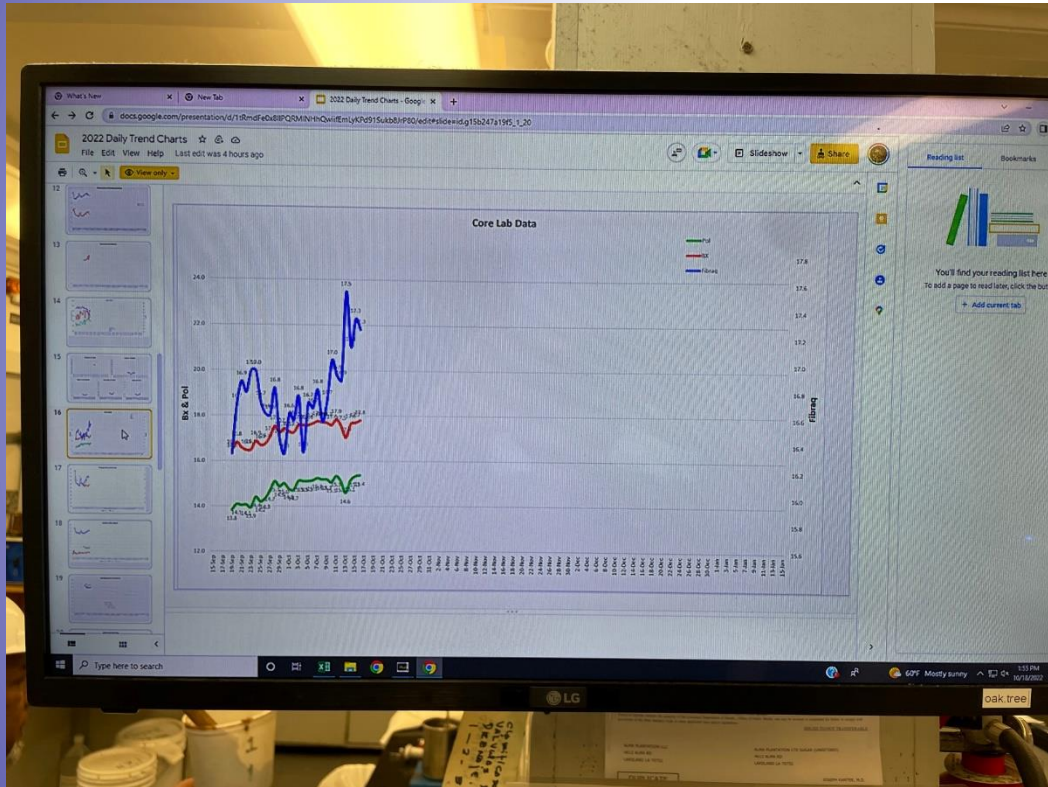


# January 11, 2023 – Molasses Cars at Cajun





# Long grained A strike sugar crystals



Brix, pol, fiber at Alma 10-18-2022





# January 11, 2023 – Cane in Kaplan







# EARLIEST FIRST FALL FREEZES

BATON ROUGE / RECORDS SINCE 1892

Rank

Dates

**1**

**Oct. 27, 1898**

**2**

**Oct. 28, 1957**

**3**

**Oct. 30, 1952**

**4**

**Oct. 31, 1993**

**5**

**Nov. 2, 1966**

**Avg. 1st Freeze: Nov. 24**



