

# **Updates from the Field: Row Spacing & Cane Ripening**

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# Cooperators

- **LSU Ag Center**
- **AMSCCL**
- **USDA ARS**
- **Calvin Viator PhD and Associates**
- **Lance Rodriguez Ag Services**
- **Viator Consulting & Research**
- **Dedicated Growers**



# History of Row Spacings



- 1819 to 1883: 2-3 ft rows in Louisiana
- 1930: 8 ft rows in Hawaii
- 1980: Interest in row spacing showed variable results

# Methods

- Collected all replicated row spacing data.
- Nine different experiments.
- Actual yields not estimated yields.
- Calculated percent increase or decrease.

## Five growing seasons:

✓ 2013, 2014, 2015, 2016, 2017

## Four varieties:

✓ 540, 299, 950, 226

## Cane age:

✓ 6 plant cane crops

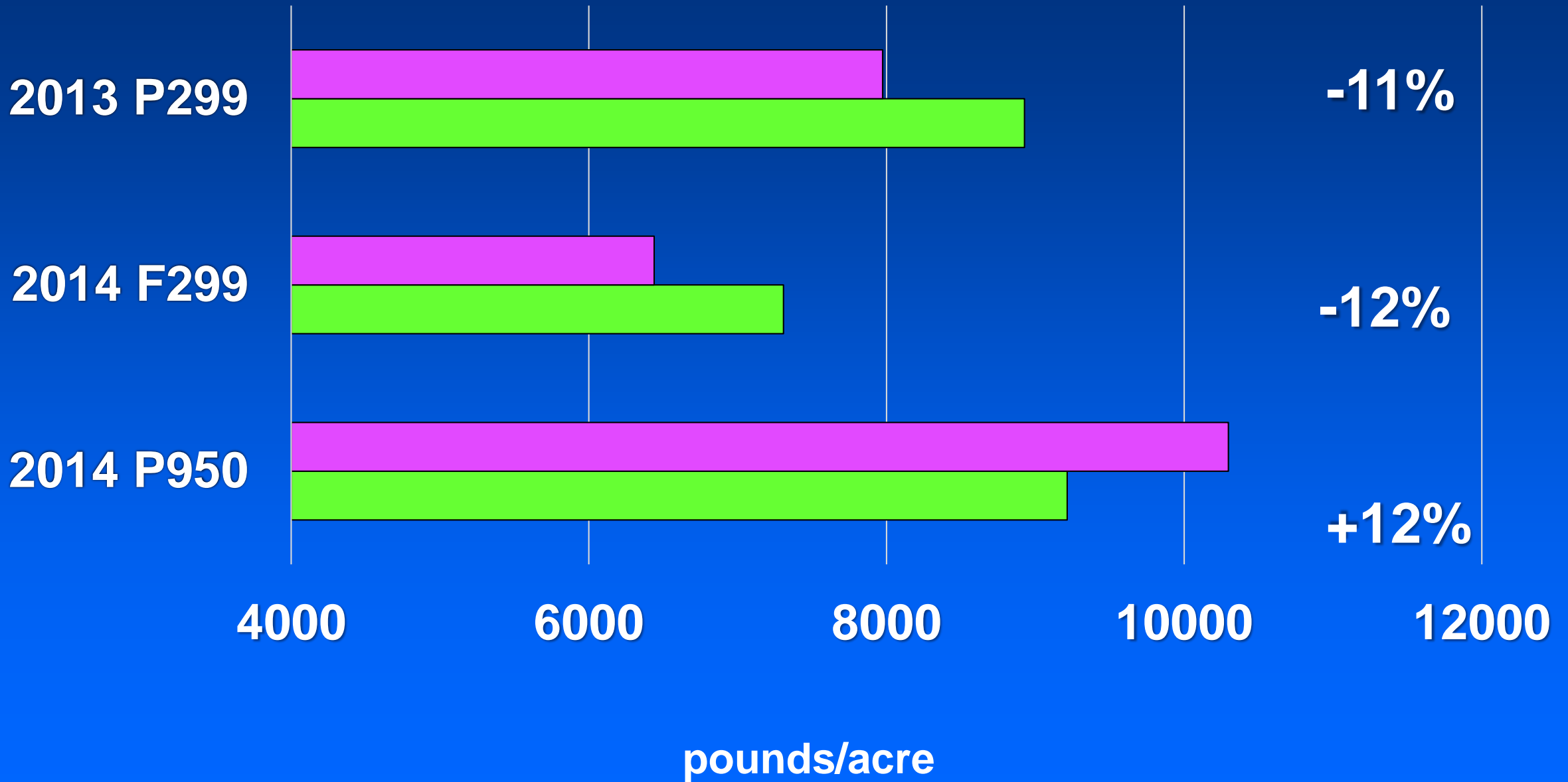
✓ 2 first stubble

✓ 1 second stubble



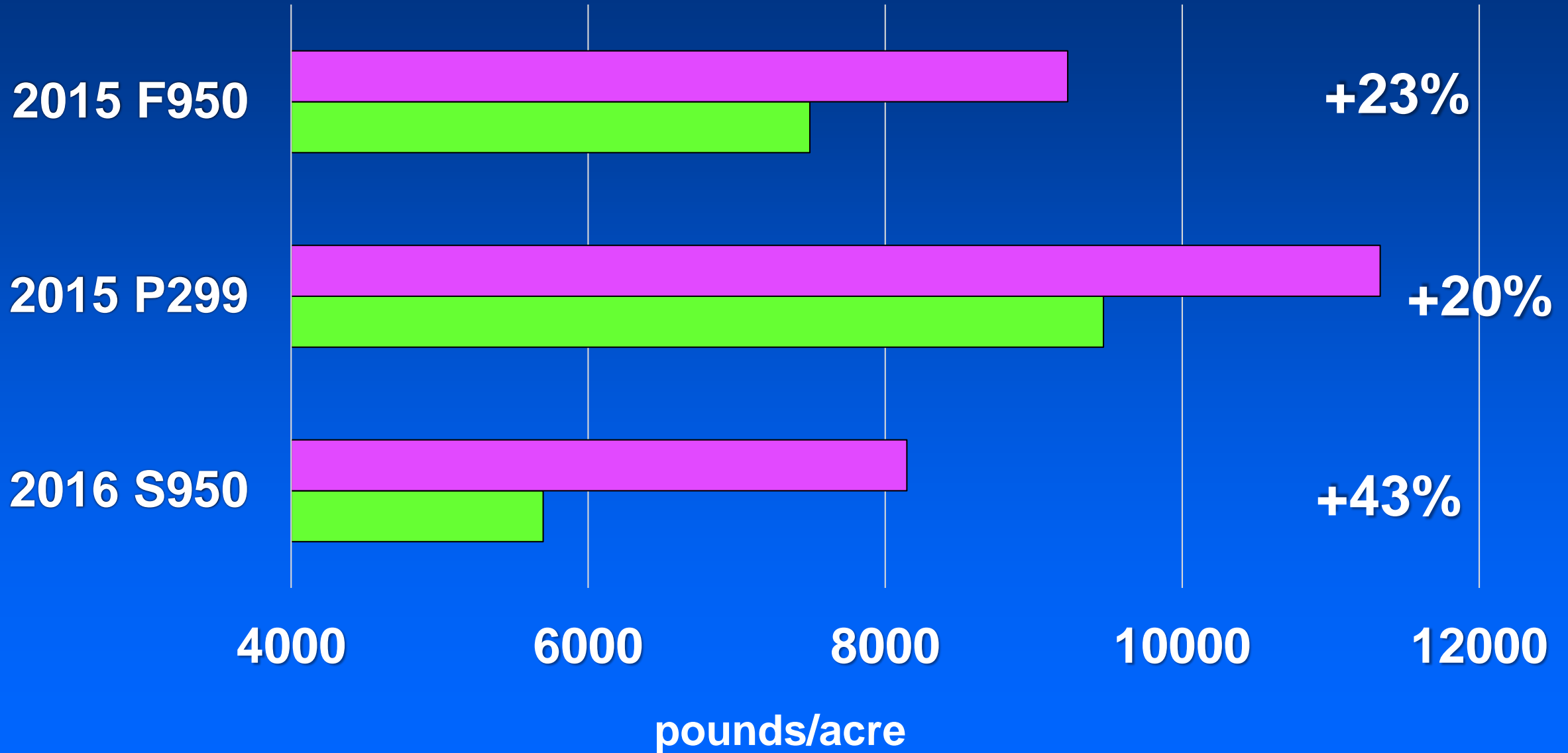
# Sugar / Acre

■ 8 FT ■ 6 FT



# Sugar / Acre

■ 8 FT ■ 6 FT



# Sugar / Acre

■ 8 FT ■ 6 FT





# Results

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**Five of the nine studies showed an advantage to wide-rows.**

## **Wide-row Cane Quality**

- **7% increase in total sediment**
  - **2% increase in total fiber**
  - **0% change in TRS**
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# Results

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## Gains in efficiency (Glenn Rivet & Sons):

- Two new eight foot machines with eight wagons
  - 10 hour days
  - 70% burnt and 30% green
  - 1800-2000 tons a day
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# Summary

- 8% yield gain but not a slam dunk.
- Variable results: -12% to +43%.
- Variety related. Soil type and DOP?
- Trying to find other key factors for fit.
- This system is still improving.
- Cost to benefit analysis is uncertain.
- 75-76 inch rows?

# Ripening Studies



# Background

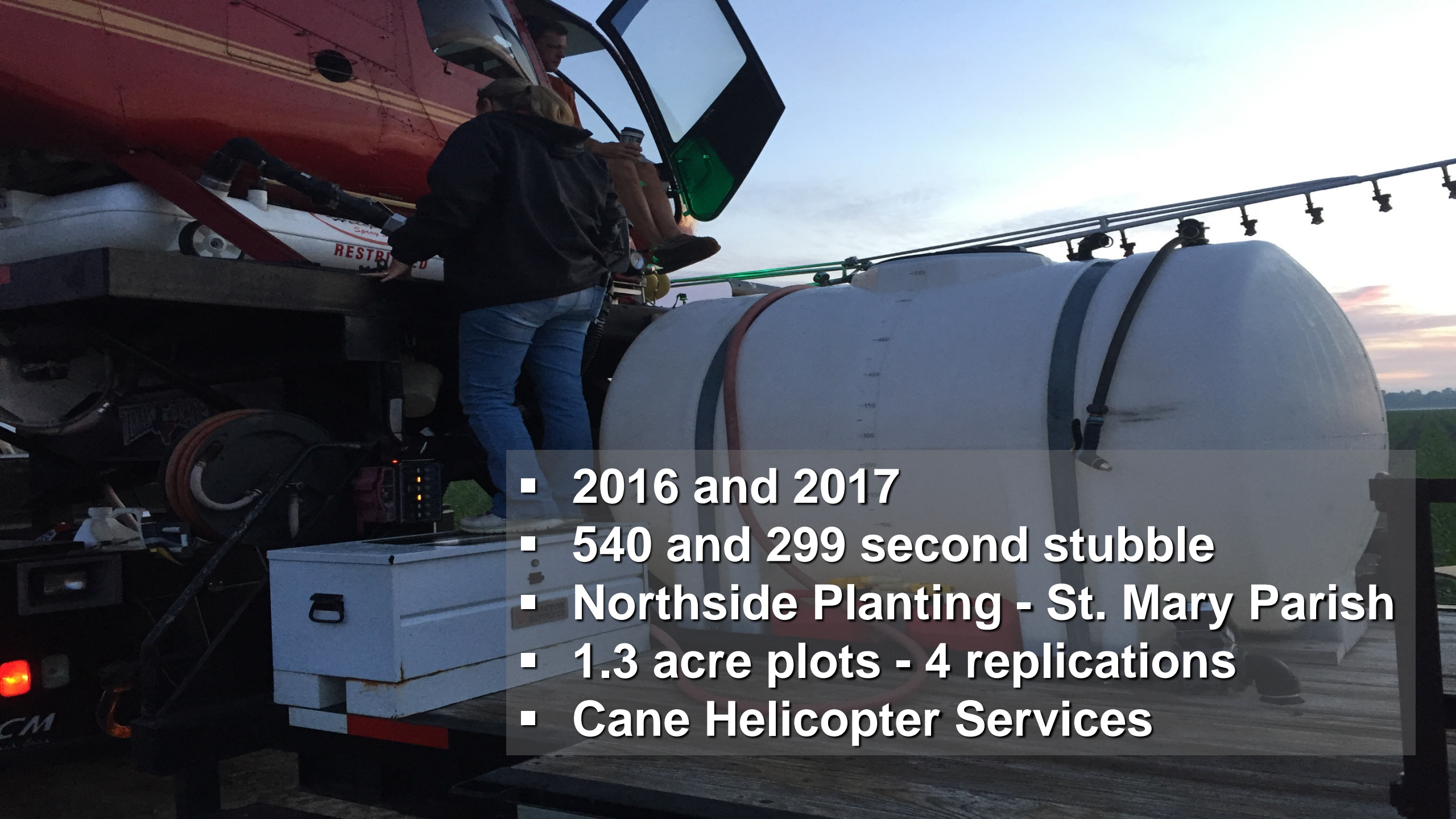
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- **RTL 288 improved yields in 2015 & 2016.**
  - **RTL 288 tank mixed with glyphosate in 2016 indicated synergism.**
  - **RTL 288 now has a trade name of Intake produced by Emerald BioAgriculture.**
  - **Blend of amino acids with small amount of nitrogen to increase photosynthesis.**
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# Methods

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- **Treatments:**
    - ✓ **WeatherMAX 5.3 oz/A (1X)**
    - ✓ **Intake 8 oz/A (1X)**
    - ✓ **WeatherMAX 1X + Intake 1X**
    - ✓ **Untreated control**
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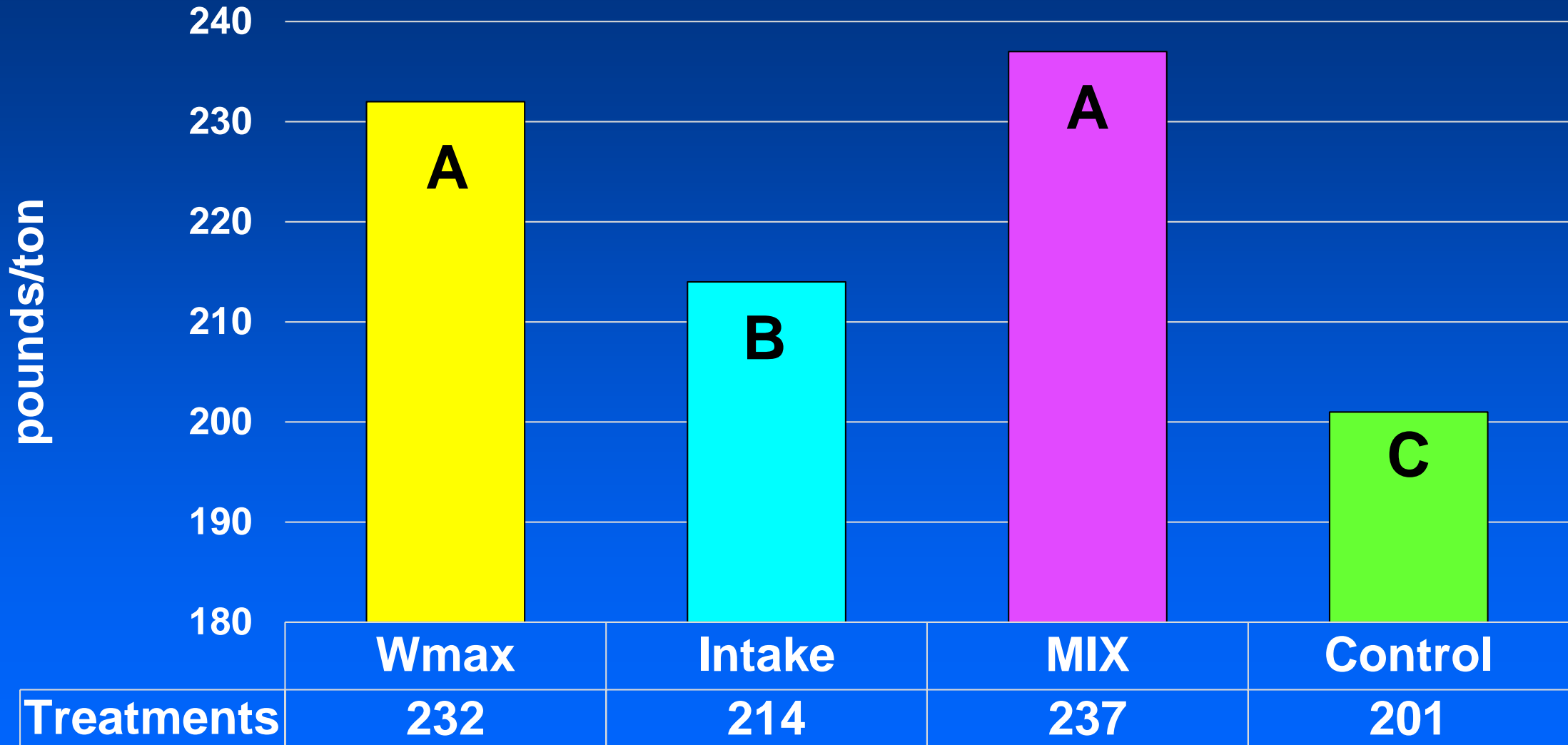
- 2016 and 2017
- 540 and 299 second stubble
- Northside Planting - St. Mary Parish
- 1.3 acre plots - 4 replications
- Cane Helicopter Services





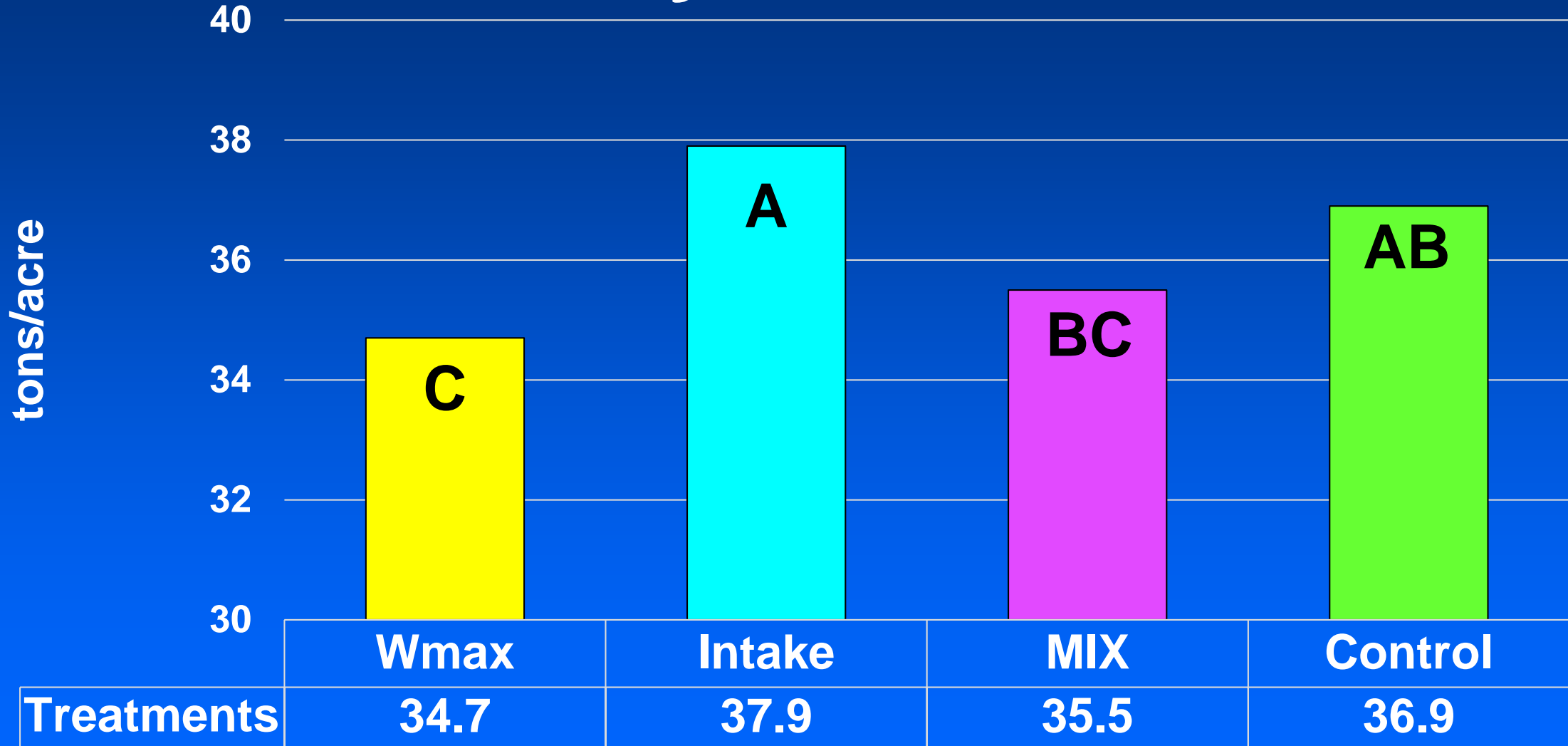
**P=0.0001**

# TRS: 6 WAT



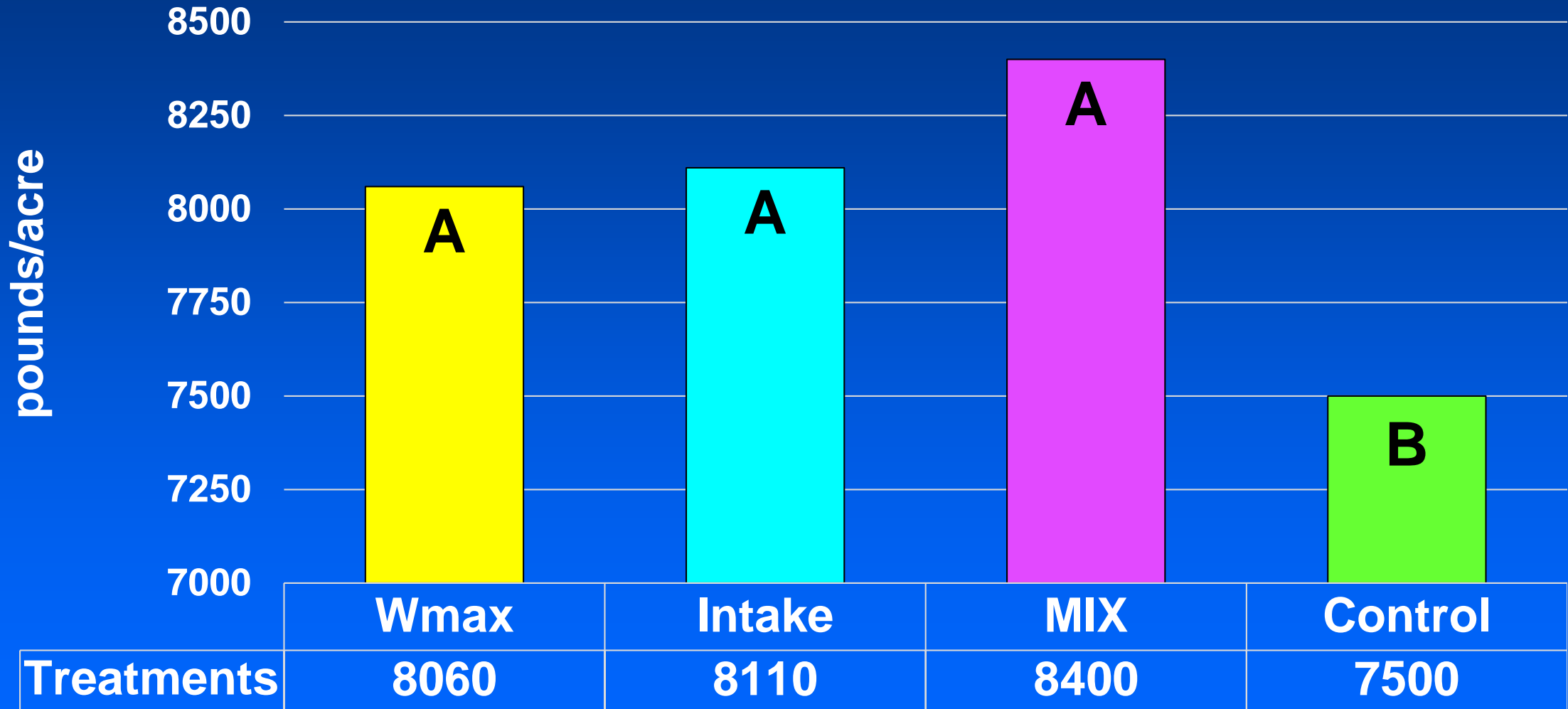
**P=0.0069**

# Cane yield: 6 WAT



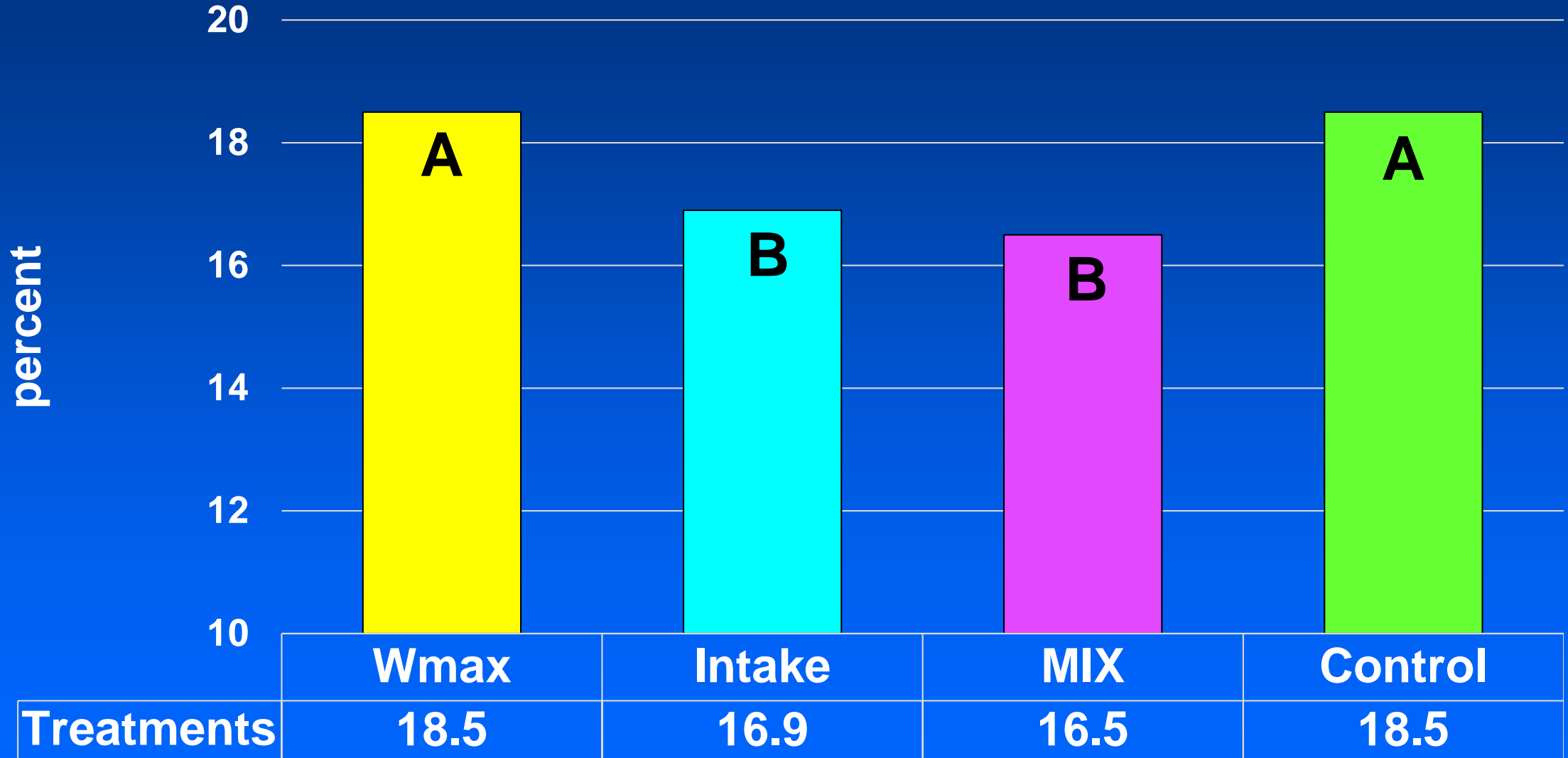
**P=0.0002**

# Sugar yield: 6 WAT



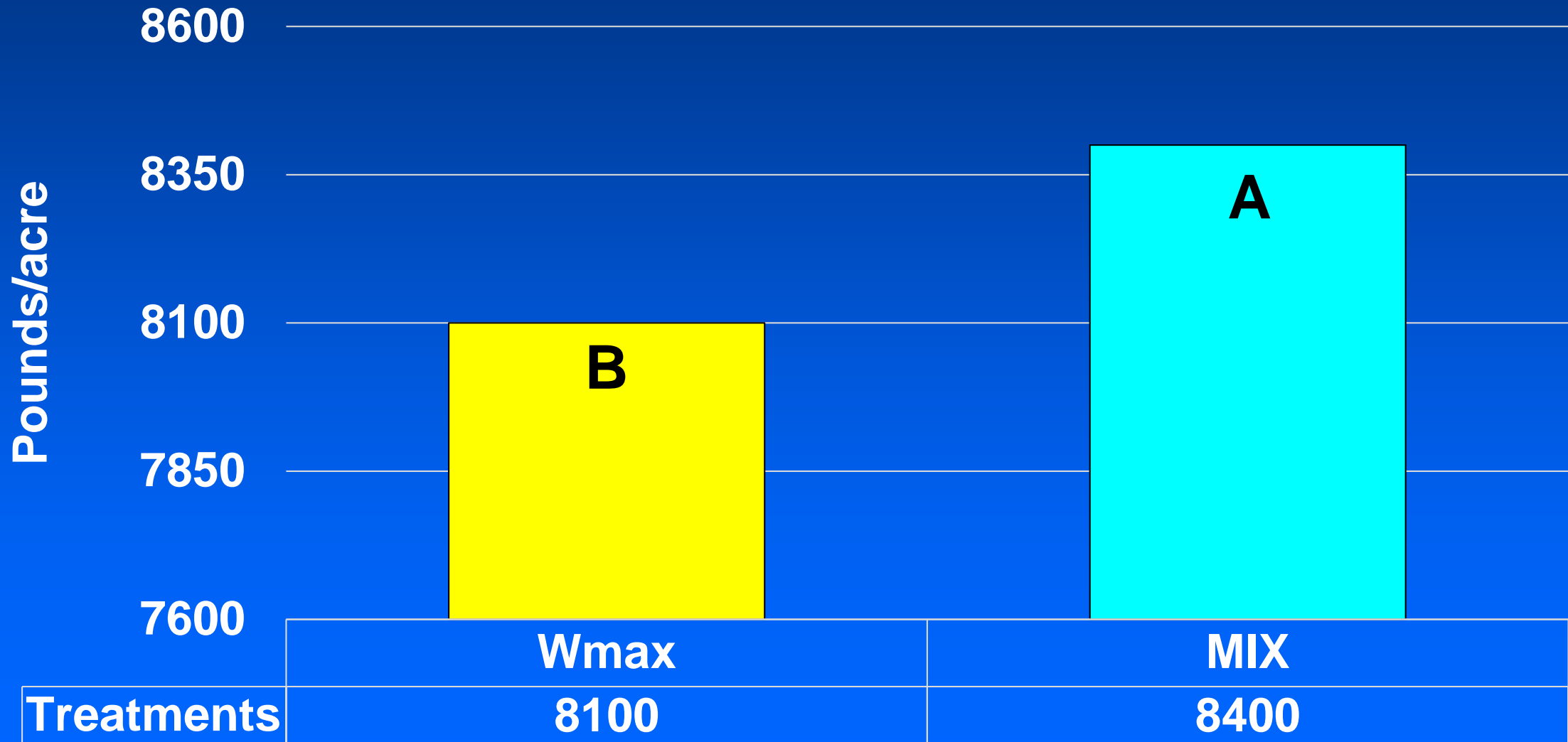
**P=0.0049**

# Fiber: 6 WAT



**P=0.10**

# Sugar yield: 6 WAT



# Summary

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- Tank mix of Intake and glyphosate beneficial:
  - ✓ Increase in sugar per acre
  - ✓ Increase in cane quality
  - ✓ Decrease in fiber









