

# ICL Fertilizer



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North America Agronomy Lead



# Polysulphate: A 4-in-1 mineral

S  
19.2% S

K  
14% K<sub>2</sub>O

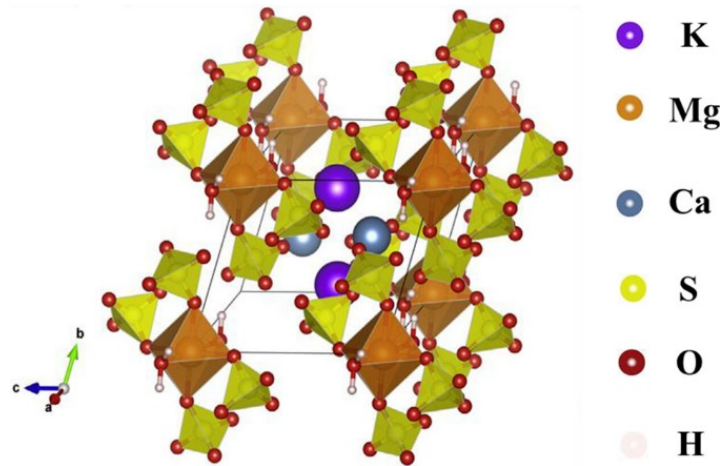
Mg  
3.6% Mg

Ca  
12.2% Ca



- Naturally occurring; **ONE** single complex crystal **"not a mixture"**; *"many salts,"*

- Sulfate chemistry
- Ca solubility
- K without Chloride
- System efficiency



# Polysulphate Nutrient Release

Polyhalite Mineral  
(Polysulphate®)



Single, Integrated Crystal

Dissolves in Soil Solution

Sulfate drives dissolution —  
cations follow to maintain charge



Sulfate-Driven Dissolution

Co-Release Into Soil



Nutrients Co-Released in Original Ratio



# ICL PKPLUS<sup>®</sup>

ICL PKplus is a high-quality range of granulated fertilizers based on Polysulphate.

Formulations can be tailor made to allow farmers to apply five nutrients in one application

Ideal for placement and combine drilling at planting for establishment

Example grades v traditional PK's;  
**0-24-6 + 9.1 S (1.8 Mg+15 Ca)**

**5 nutrients in 1!**

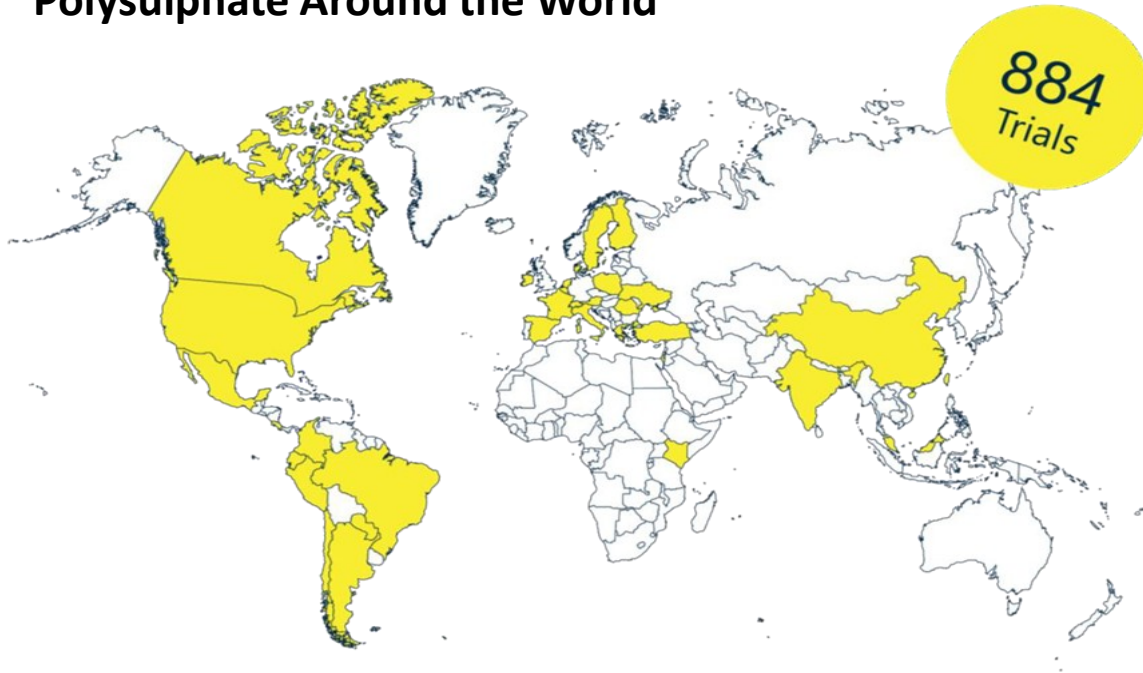
**\*Micronutrients available**



# Increase Crop Yield & Quality

Consistent results increasing yield, NUE, and quality

## Polysulphate Around the World



↑ **Yield effect:** Trials — +148 | 8% increase  
↑ **N-use efficiency:** Trials — 106 | 10% Increase

## Polysulphate In North America



↑ **Trials** — +60 | **Crops** — +20  
↑ **Avg Yield:** 11.87% increase



SOIL-PLANT

# RELATIONSHIP

## BIOZ<sup>®</sup> DIAMOND

For Healthier Soils  
and Stronger Crops

Synergy between  
roots and microbes  
enhances crop  
resilience and yield,  
providing a  
sustainable solution

Enhance plant's  
ability to uptake and  
utilize water and  
nutrients



**MOLASSES**  
Activation and  
equilibrium of soil  
microbiota



**FULVIC SUBSTANCES**  
Rooting and boosting  
plant metabolism

Greater root system with  
increased microbial  
association increases  
nutrient foraging and  
uptake efficiency



**YEAST EXTRACT**  
Metabolic boost





# Bioz Diamond

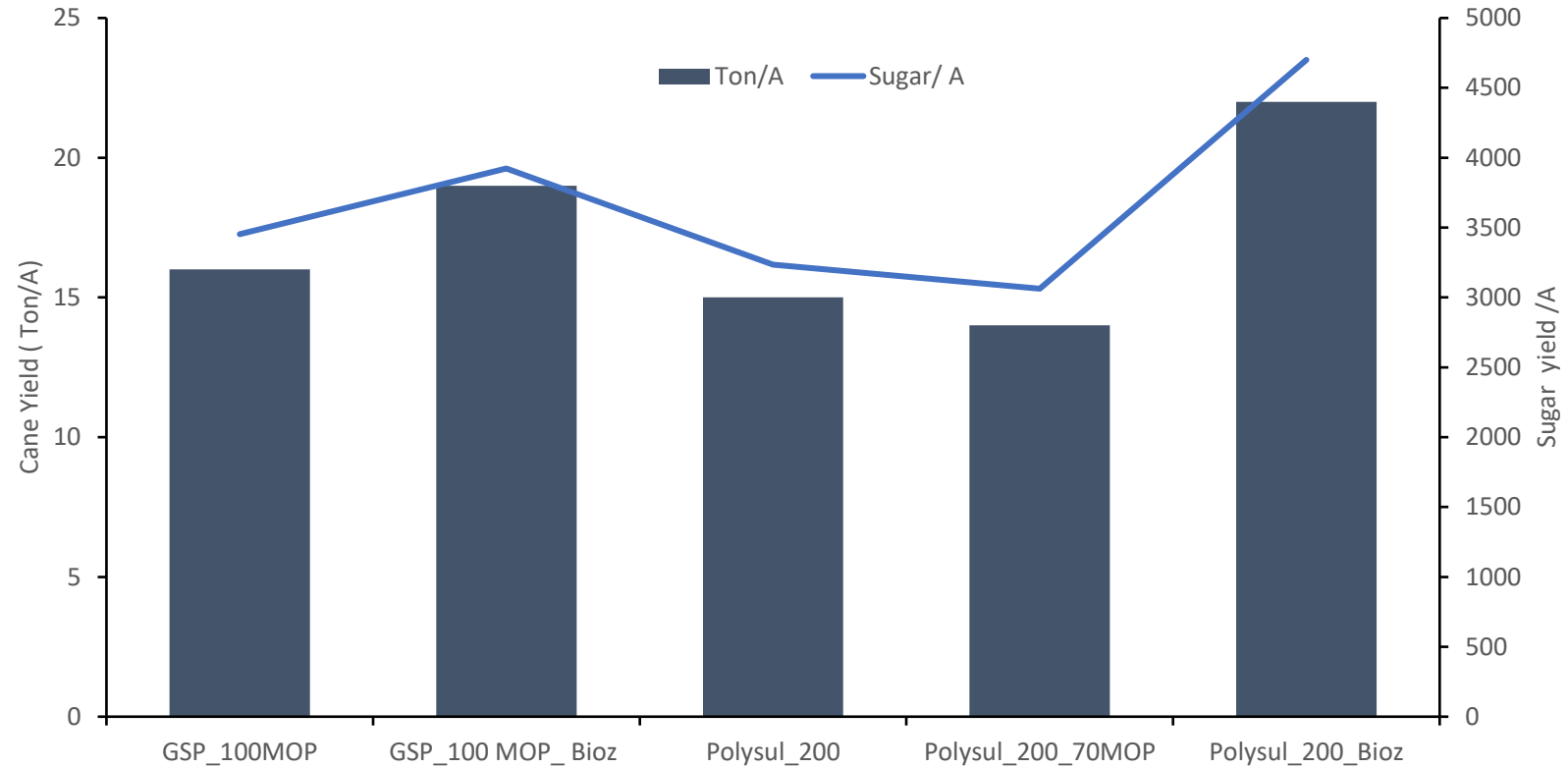
- In Field Results



# Polysulphate & Bioz Diamond on Billet Plant Cane Yield

2025 trial with Syntech Research Group, Cheneyville, LA

Bioz Diamond in combination with Polysulphate and MOP increased yield over the MOP and Polysulphate alone.



- Four replications of each treatment.
- Control 0-0-60 applied at 200# supplies 120 # K2O per acre
- Polysulphate applied at 200 # supplies 28# of K2O, 38# of S, 24# of Ca and 7.2# of Mg.
- Bioz Diamond applied at 0.5 gal/A



# Role of Acidic Phosphate Fertilizers

• 0-60-20,11-45-11 +2% Zn,6-31-31 WSF / 0-27-9 , 5-20-7, 4-17-4 -0.75 (Zn)LQ

- Lower soil and water pH
- Neutralizing bicarbonate in soil and irrigation water
- Increasing P availability
- Enhance micronutrient availability (Zn, Mn, Fe)
- Complements Polysulphate in high pH systems



Blocked dripper



Cleaning during use



Cleaned after use



# Acidic Fertilizers

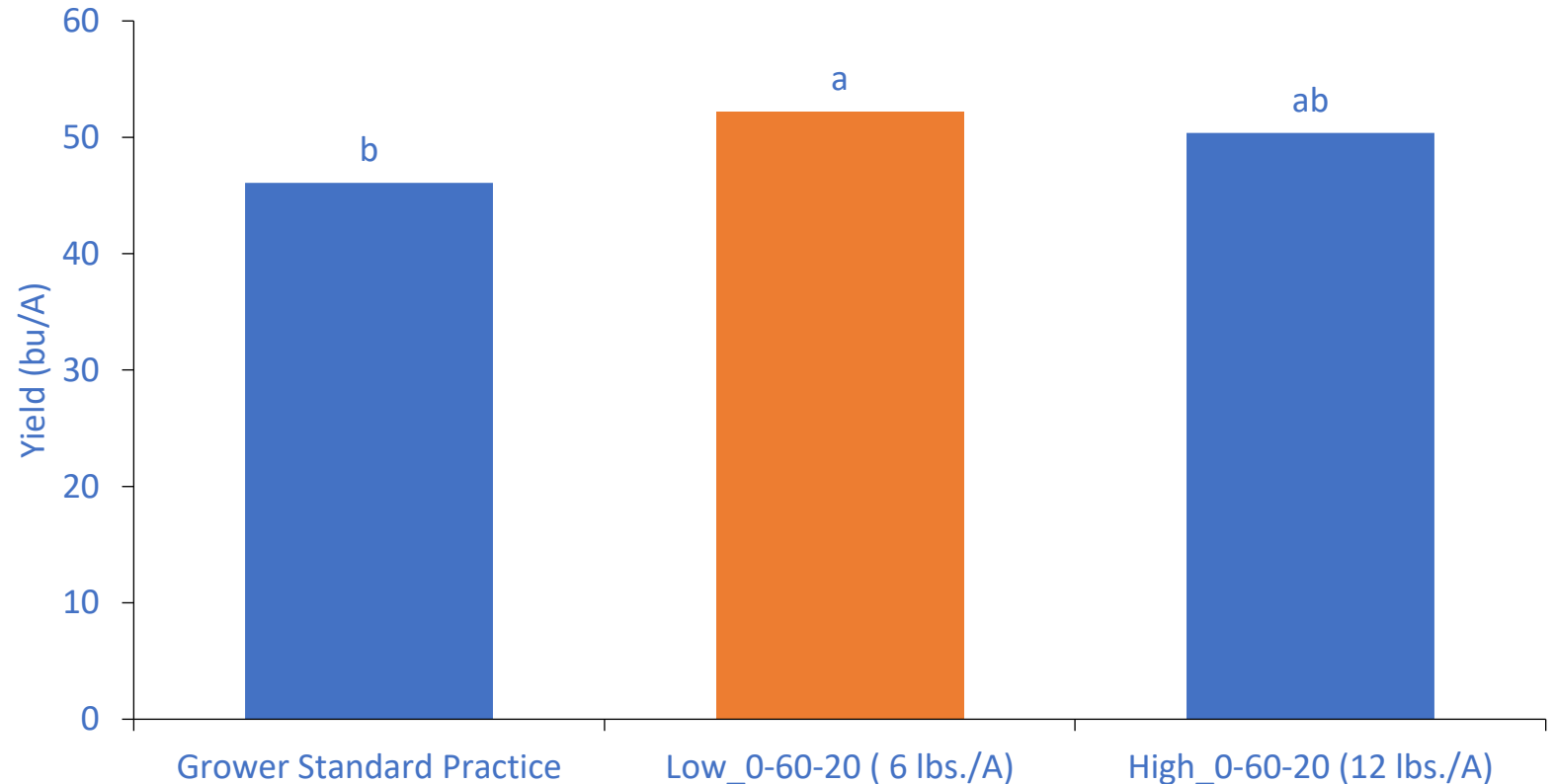
- In Field Results



# Acidic Starter Fertilizer (Nova PeKacid) on Soybean Yield

Acidic starter fertilizer applied in-furrow at 6 lbs./acre increased soybean yield by 8 bu./A or 13 % over the GSP.

✓ **Added Benefit:**  
micronutrients more available under lower pH (manganese)

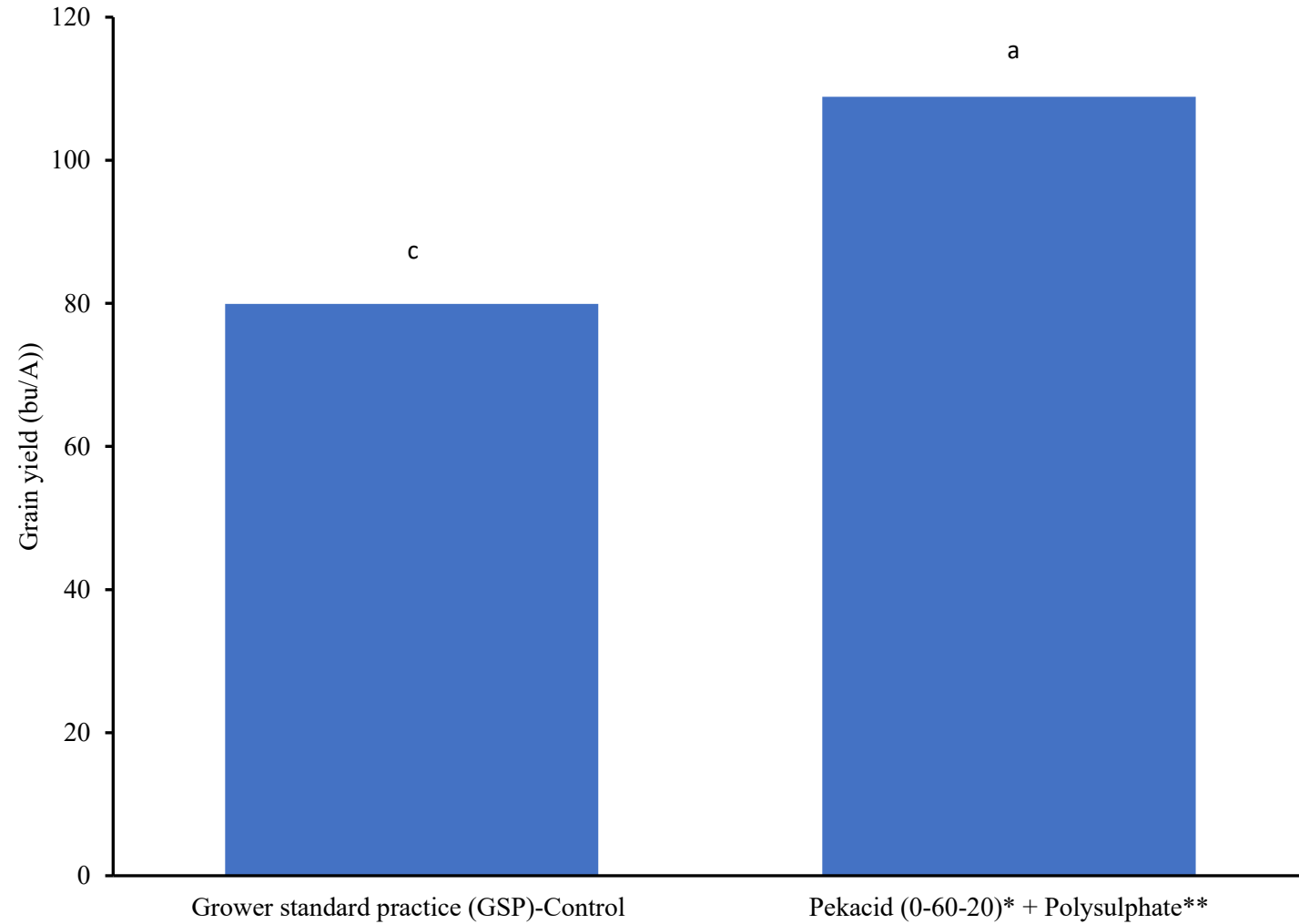


- Pest Management Enterprise 2024, Cheneyville, LA
- Means follow by same letter is not significantly different at the 0.10 significance level.
- Soil pH: 7.0 ; 280 lbs/A of 0-46-90-25-0.5-2 (NPK-S-B-Zn) was applied in March and the GSP the Pekacid was applied in addition to GSP.
- Notes: The study plots were affected by leaf spots (*Cercospora soji*). Initially, the study included six replications, but two were removed due to severe disease incidents in those plots, leaving only four (4) replications for analysis. Dissolved in water at rate of 3 lbs. per gallon.

# Acidic Phosphate Starter fertilizer increase Sorghum Yield.

2025 Trial done by Dr. Peter Omara, Texas A&M Weslaco TX

Acidic Phosphate fertilizer increased yield over the GSP by 36% (29 bu./A)

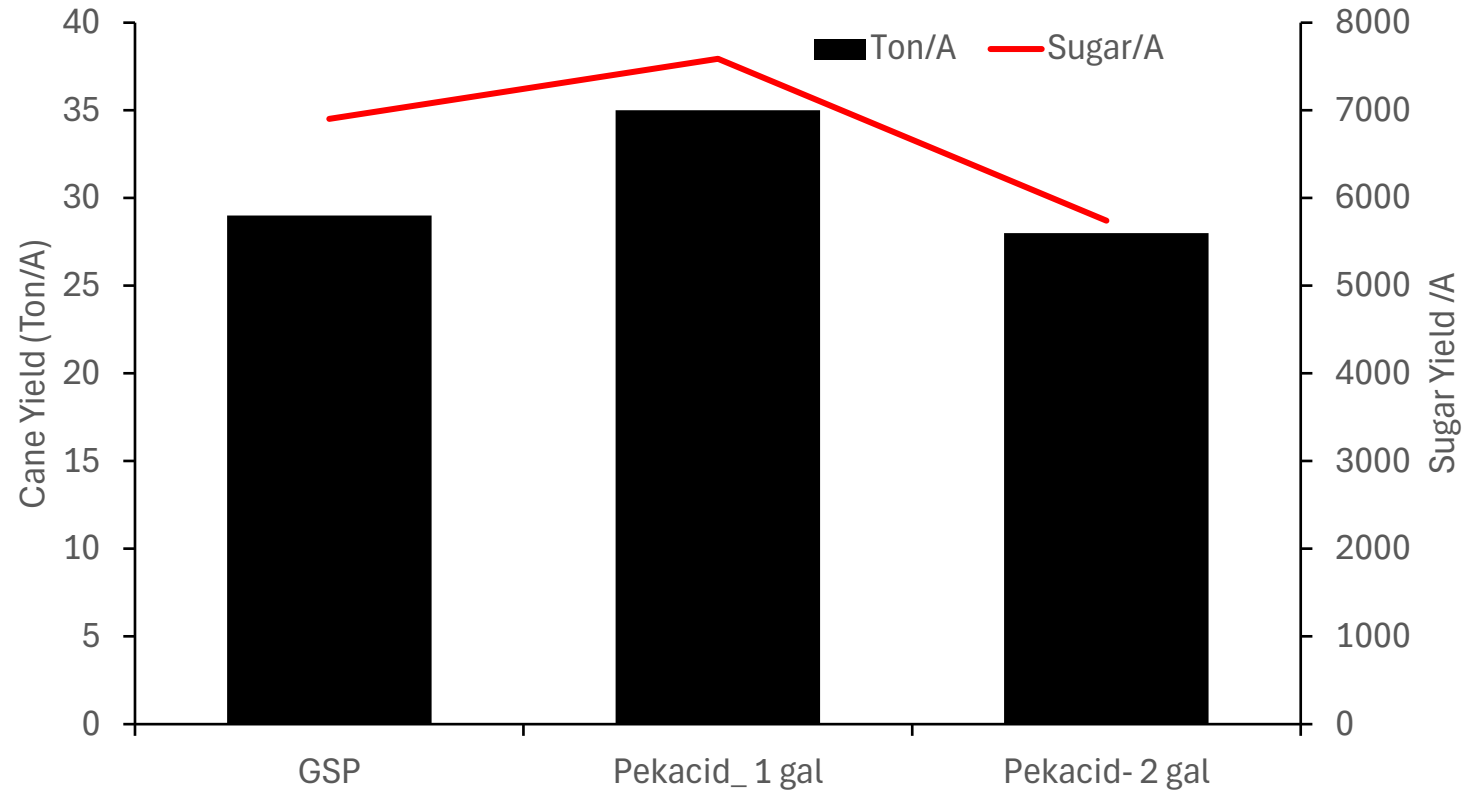


- Dr. Omara, 2025, Texas A&M, Weslaco, TX
- Soil pH 8.3, P 55 ppm, K 560 ppm
- Means follow by same letter is not significantly different at the 0.05 significance level.

# Sugarcane Ripening Trial with Acidic Foliar Fertilizer

2025 trial with Syntech Research Group, Cheneyville, LA

Pekacid applied at 1 gal/ A as a ripening agent increased cane yield by 21% and sugar yield by 10% compared to the GSP.



- Four replications of each treatment.
- Control – Grower standard practice
- Pekacid applied at 1 and 2 gal/A
- Treatment applied Aug 25<sup>th</sup> and plots harvested Oct 1<sup>st</sup>





THANK YOU

