

# University of Florida Corn Variety Trials - 2024

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# Two Sites: NFREC-Quincy and NFREC-SV, Live Oak

Quincy: July 22, 2024



Live Oak: May 18, 2024



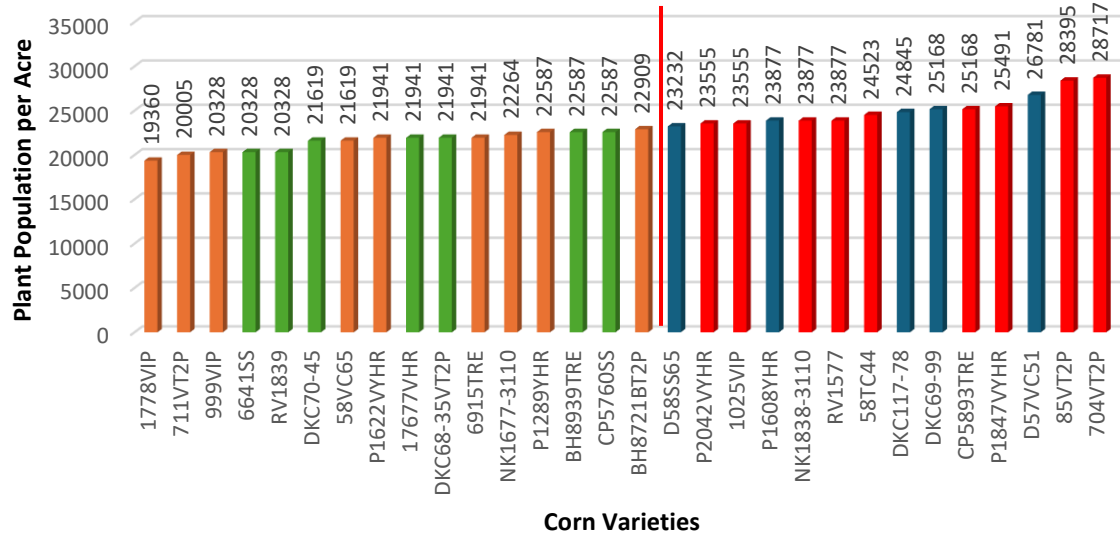


A total of **28 corn varieties** from **9 companies** were evaluated at NFREC-Quincy and 18 corn varieties at NFREC-SV.

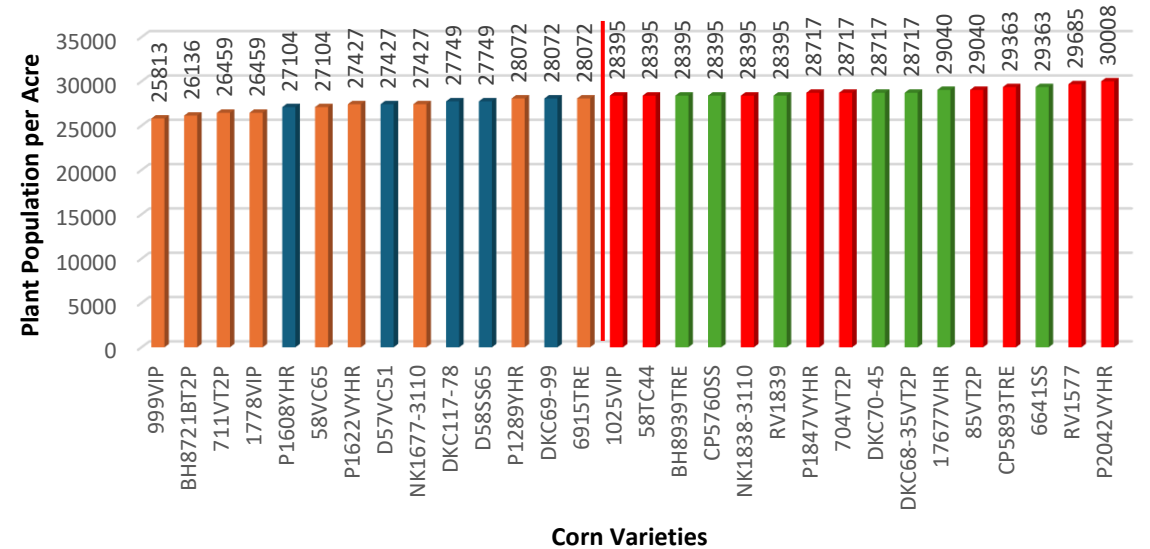
| Company Names | Corn Varieties NFREC - Live-Oak, FL | Corn Varieties NFREC - Quincy FL |
|---------------|-------------------------------------|----------------------------------|
| Agratech      | 85VT2P                              | 85VT2P                           |
| Agratech      | 704VT2P                             | 704VT2P                          |
| Agratech      | -                                   | 711VT2P                          |
| Agratech      | -                                   | 1778VIP (Silage)                 |
| Agratech      | -                                   | 1025VIP (Silage)                 |
| Agratech      | -                                   | 999VIP                           |
| BH Genetics   | BH8721BT2P                          | BH8721BT2P                       |
| BH Genetics   | BH8939TRE                           | BH8939TRE                        |
| Croplan       | CP5760SS                            | CP5760SS                         |
| Croplan       | CP5893TRE                           | CP5893TRE                        |
| Dekalb        | DKC70-45                            | DKC70-45                         |
| Dekalb        | DKC68-35VT2P                        | DKC68-35VT2P                     |
| Dekalb        | -                                   | DKC117-78                        |
| Dekalb        | -                                   | DKC69-99                         |
| Dynagro       | D58SS65                             | D58SS65                          |
| Dynagro       | D57VC51                             | D57VC51                          |
| Dynagro       | -                                   | 58VC65                           |
| Dynagro       | -                                   | 58TC44                           |
| Integra       | 6915TRE                             | 6915TRE                          |
| Integra       | 6641SS                              | 6641SS                           |
| NK            | NK1677-3110                         | NK1677-3110                      |
| NK            | NK1838-3110                         | NK1838-3110                      |
| Pioneer       | P1289YHR                            | P1289YHR                         |
| Pioneer       | P17677VHR                           | P17677VHR                        |
| Pioneer       | P1622VYHR                           | P1622VYHR                        |
| Pioneer       | -                                   | P1847VYHR                        |
| Pioneer       | -                                   | P2042VYHR                        |
| Pioneer       | -                                   | P1608YHR                         |
| Revere        | RV1839                              | RV1839                           |
| Revere        | RV1577                              | RV1577                           |

# Corn Emergence Rate - Quincy

**Corn Emergence Rate per acre at 8 DAP**  
**Trial Average = 23,178/acre**



**Corn Emergence Rate per acre at 11 DAP**  
**Trial Average = 28,094/acre**



Orange bars represent corn varieties that showed emergence rate below average at 8 and 11 DAP. Green bars represent corn varieties that showed emergence rate below average at 8 DAP, however, at 11 DAP showed emergence rate above average. Red bars represent corn varieties that showed emergence rate above average at 8 and 11 DAP.

# Management

- Total Fertilizer use in Quincy:
  - Nitrogen: 285 lbs/acre (4 splits)
  - Phosphorus: 40 lbs/acre
  - Potassium 265 lbs/acre (3 splits)
  - No additional S was applied other than what was in 34-0-0 and 5-10-15 formulations.

\* 285 lbs of N includes 40 lbs/acre applied after rain events in May.

- Target fertilizer use in Live Oak
  - Nitrogen: 233 lbs/acre (5 splits)
  - Phosphorus: 50 lbs/acre
  - Potassium 193 lbs/acre
  - Sulfur 60 lbs/acre

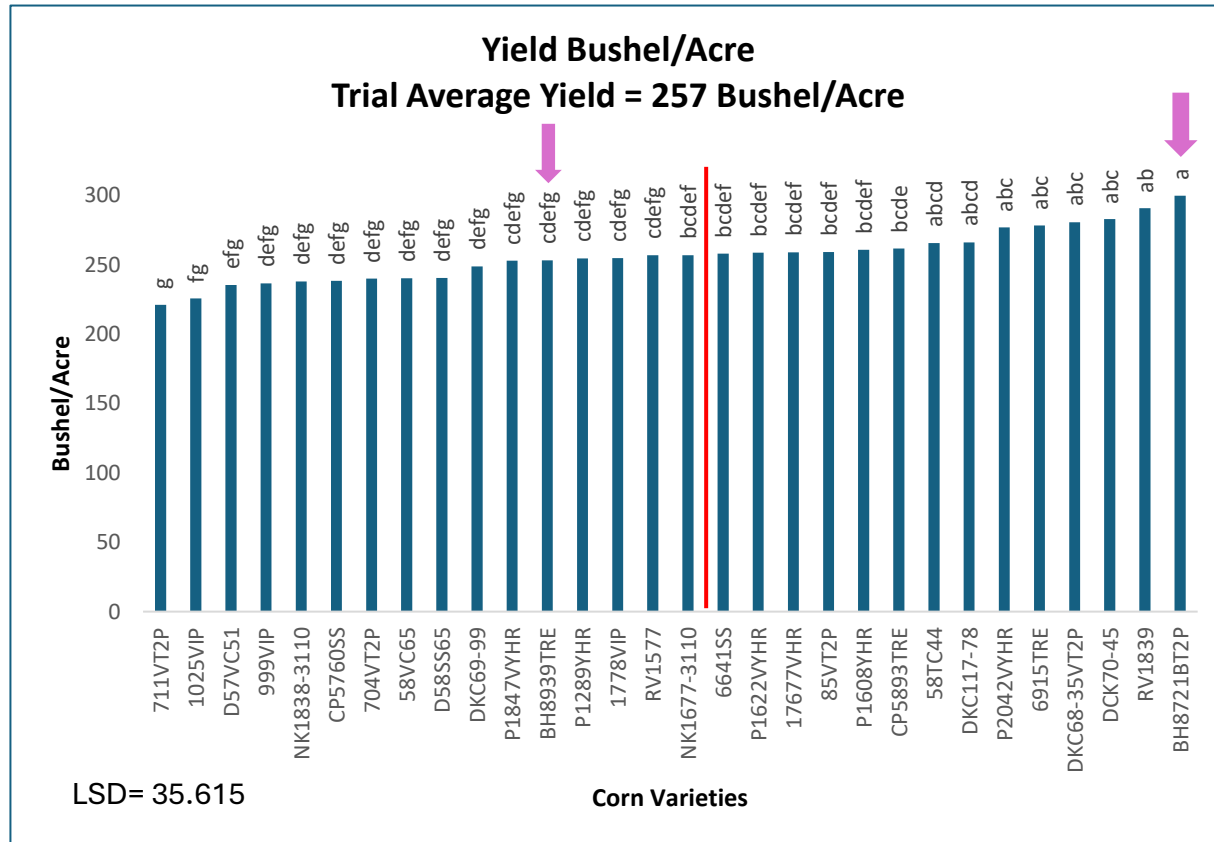
\* AgXplore Contain Advanced, AgXplore Microscience, AgXplore N-ferno, and GSI vermicompost tea was applied at planting.

# Yield Potential

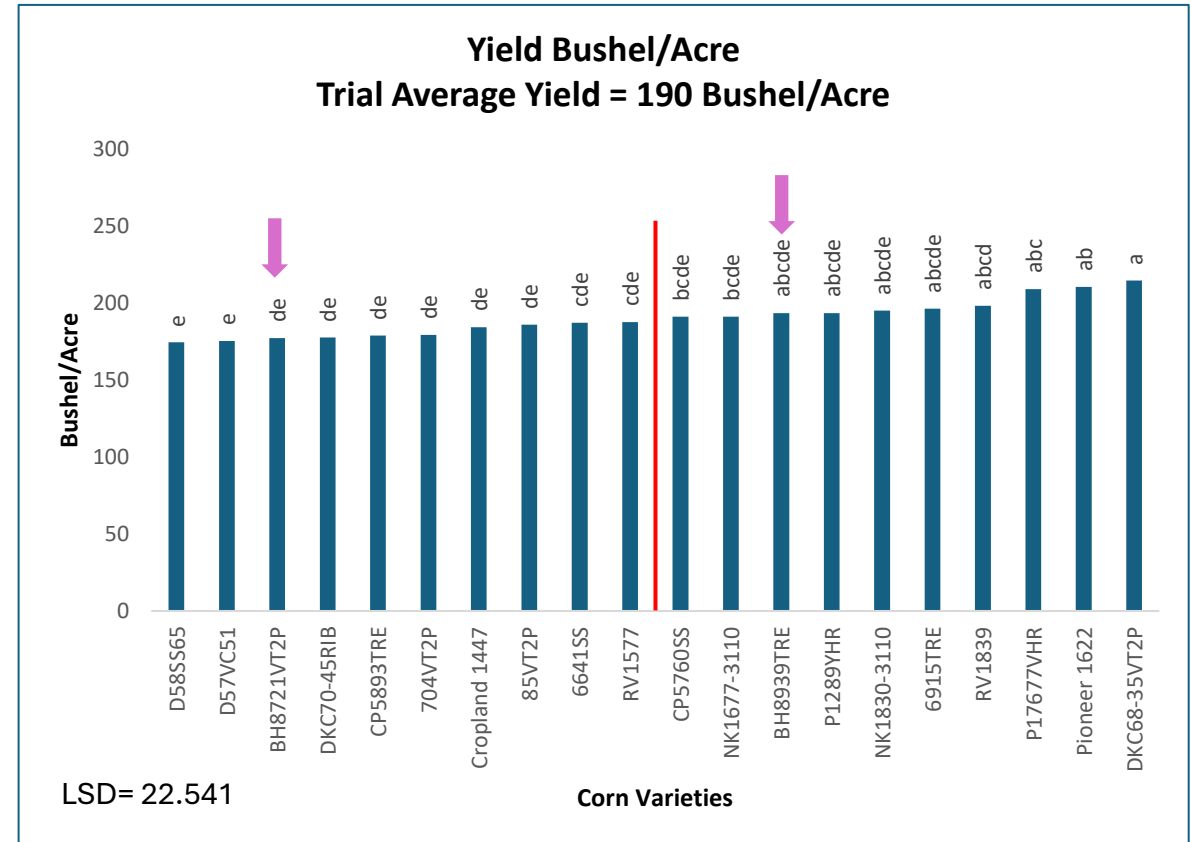
- Highest yield for Quincy was 300 bushel/acre
- Highest yield for Live Oak was 215 bushel/acre

# BH Genetics Corn Yield - Quincy and Live Oak

## Quincy

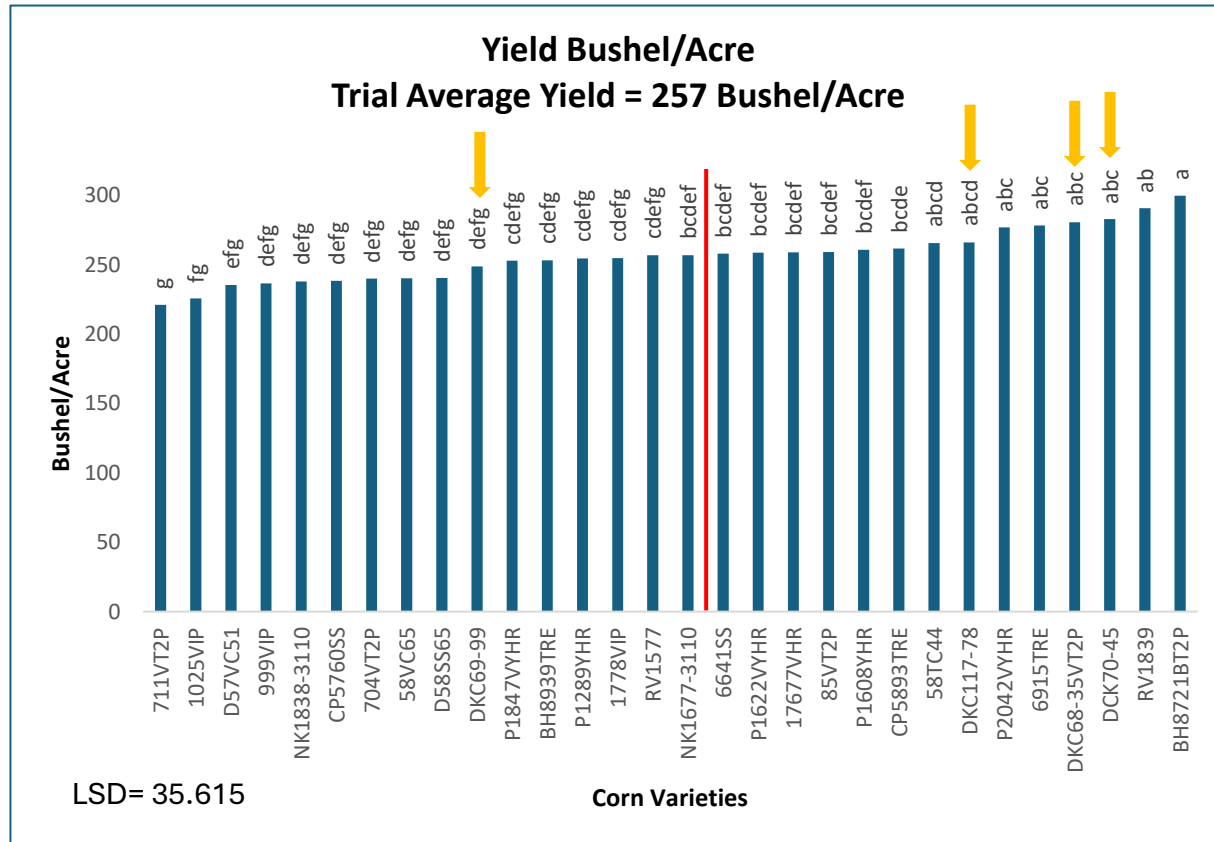


## Live Oak

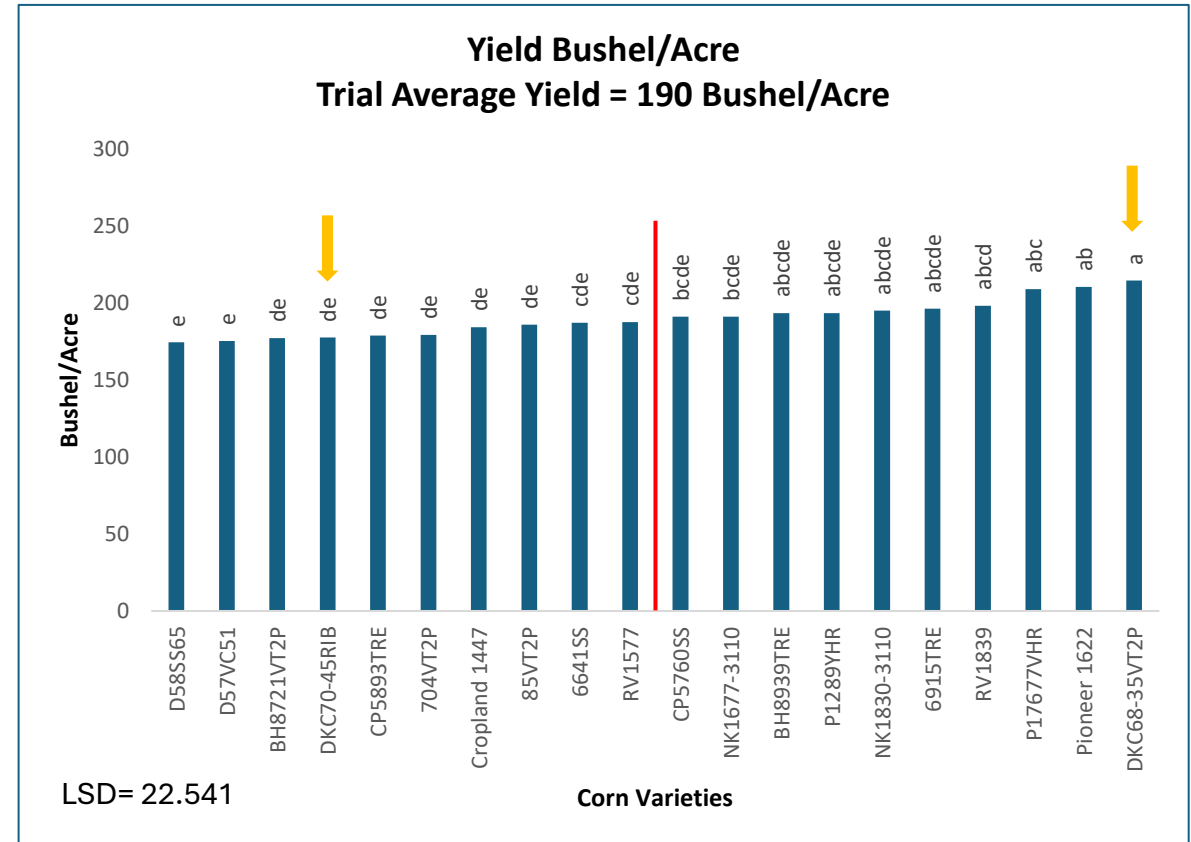


# Dekalb Corn Yield - Quincy and Live Oak

## Quincy



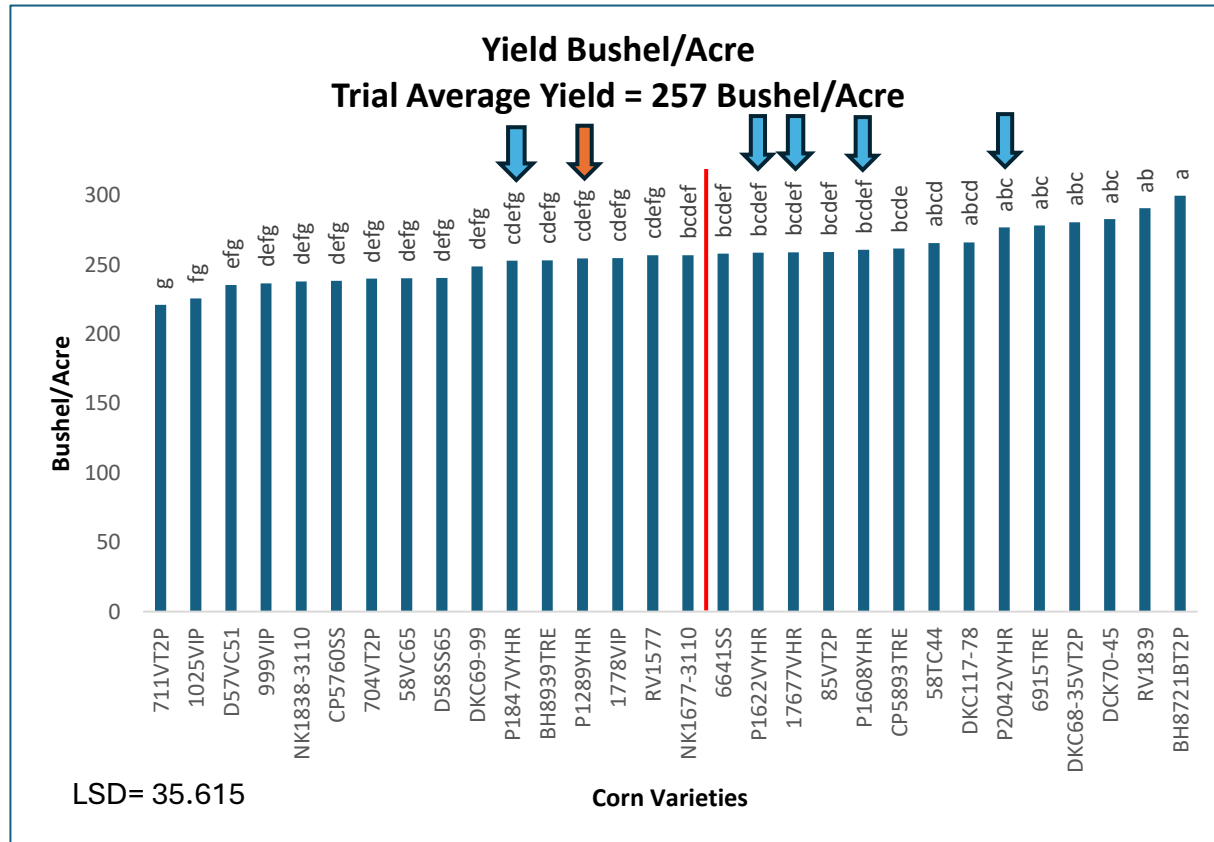
## Live Oak



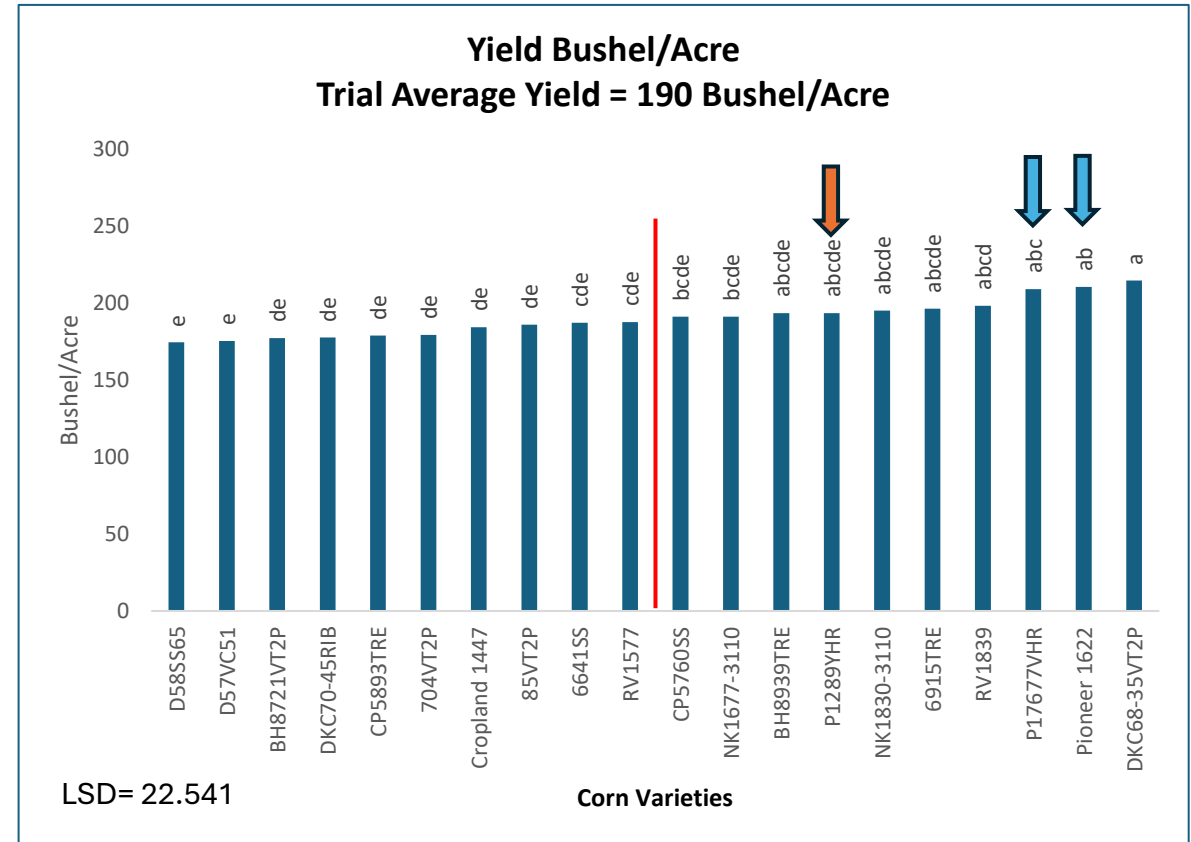


# Pioneer Corn Yield - Quincy and Live Oak

## Quincy

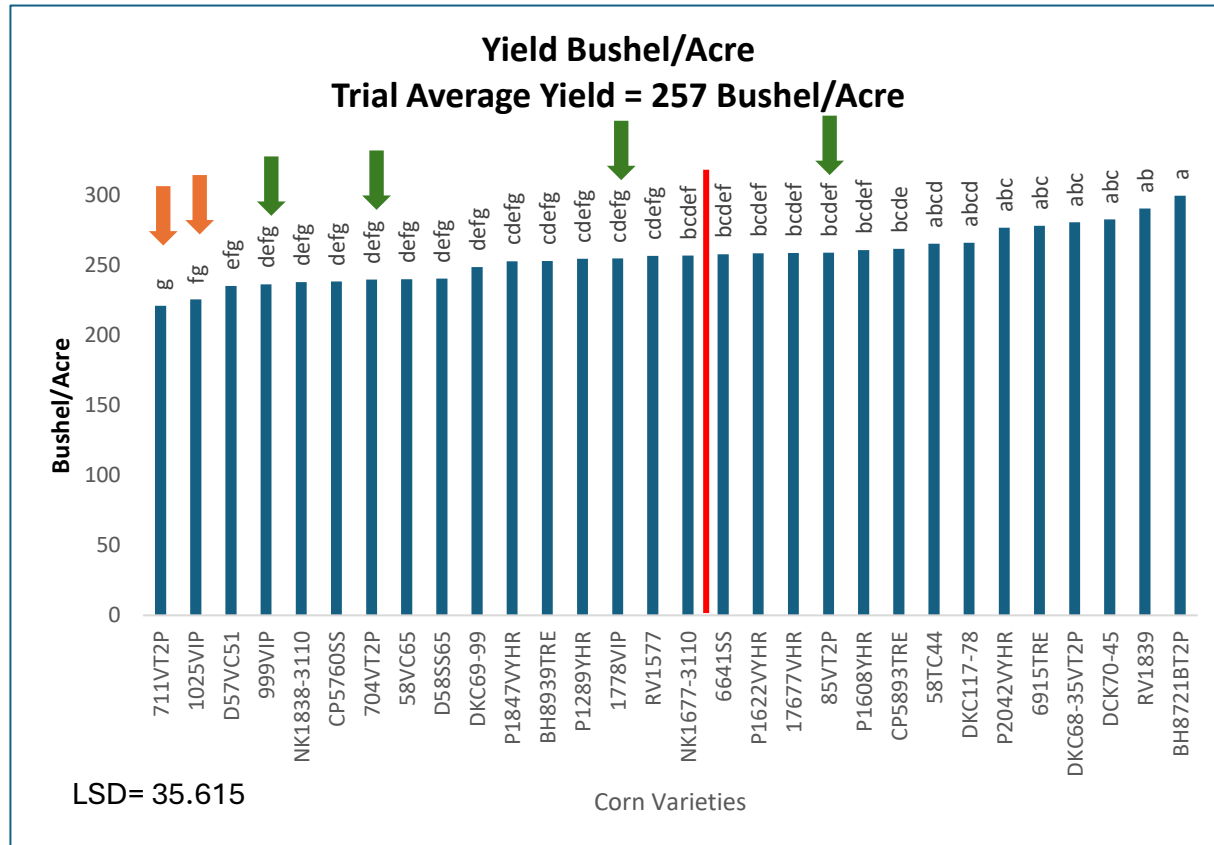


## Live Oak

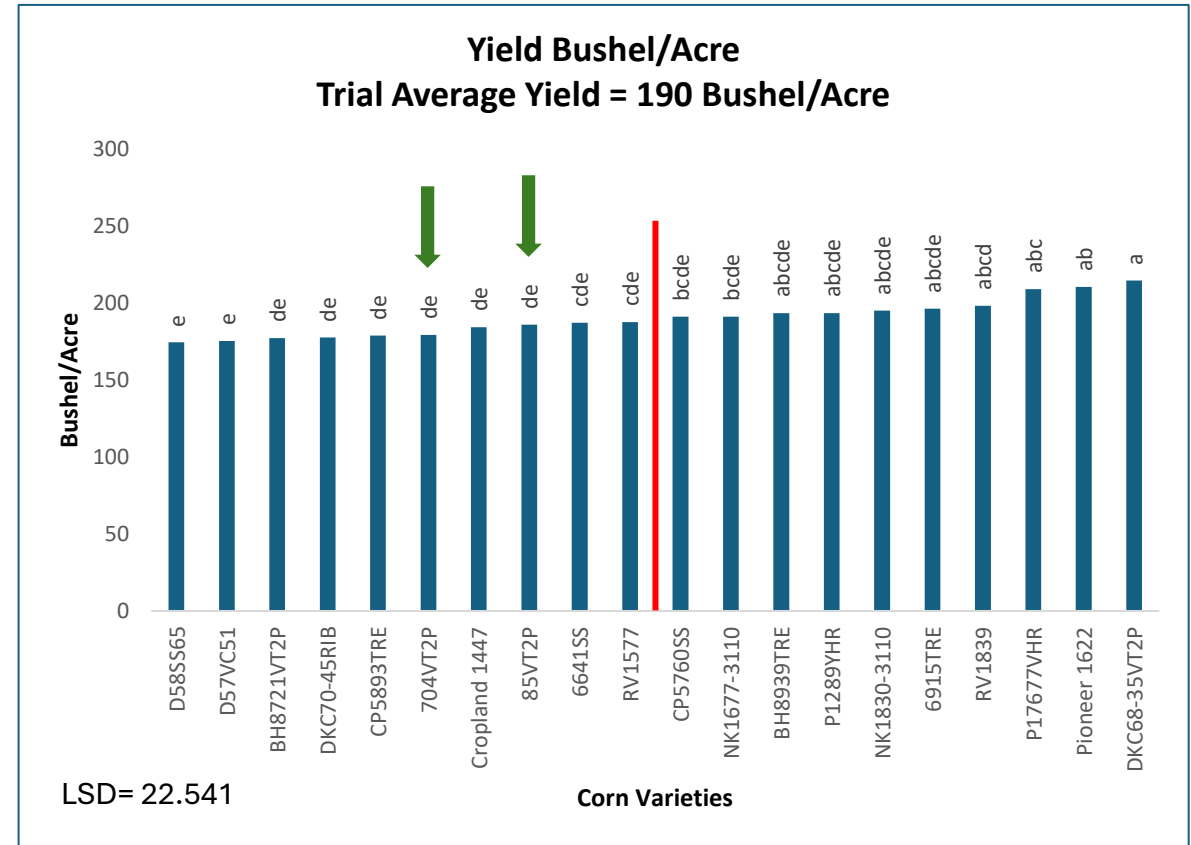


# Agratech Corn Yield - Quincy and Live Oak

## Quincy

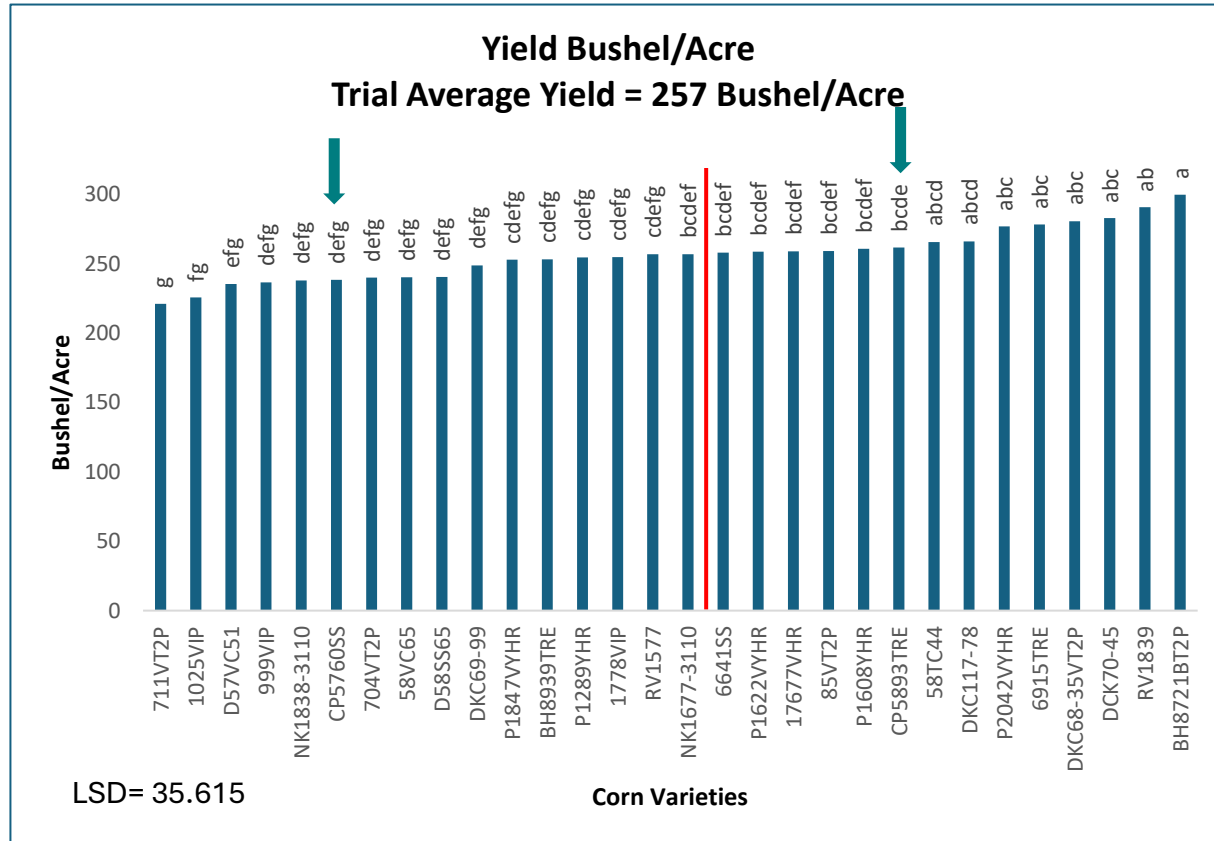


## Live Oak

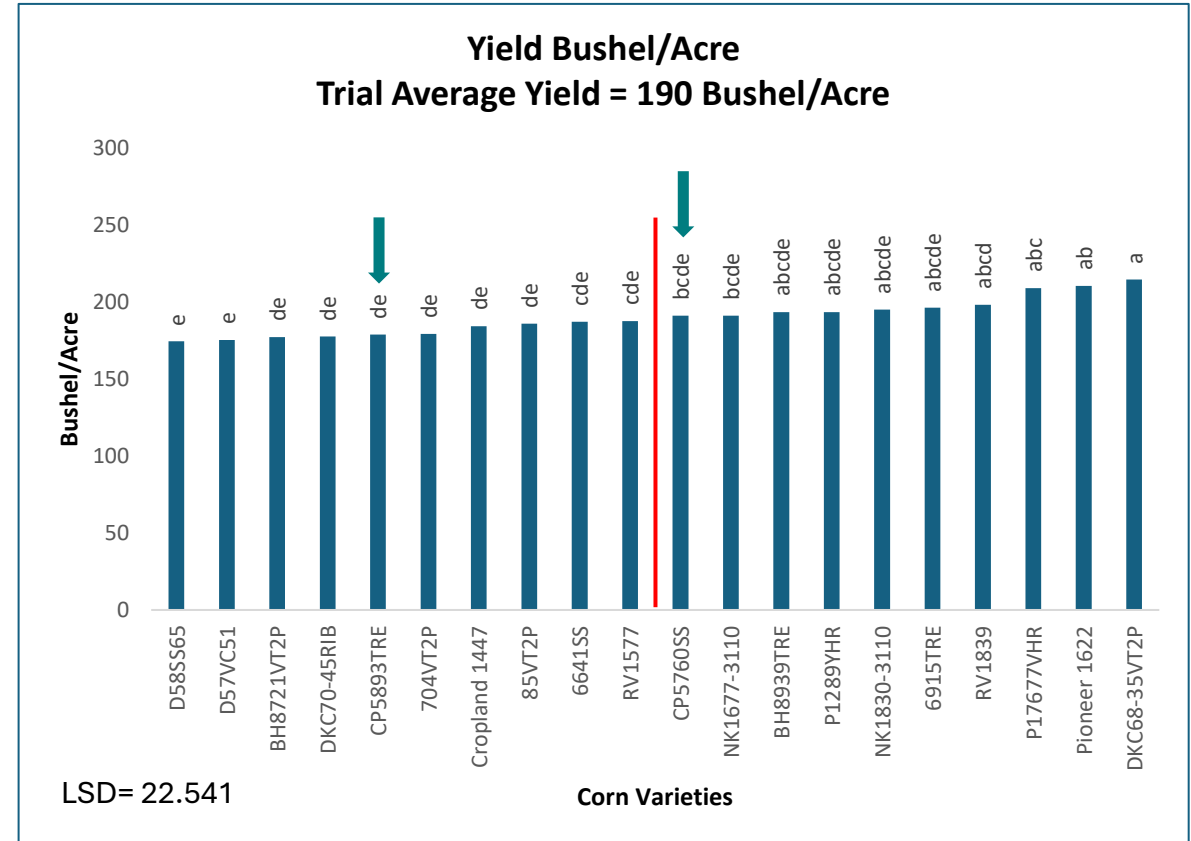


# Croplan Corn Yield - Quincy and Live Oak

## Quincy



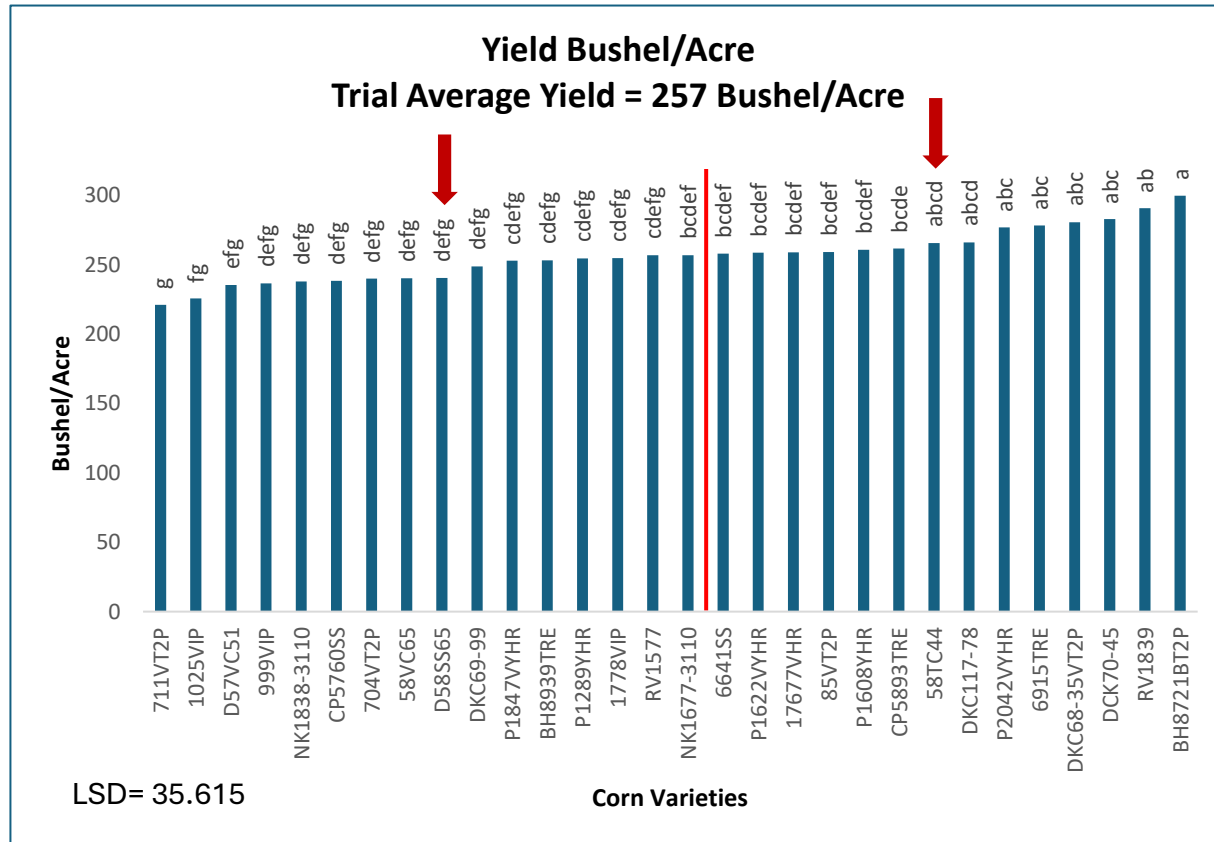
## Live Oak



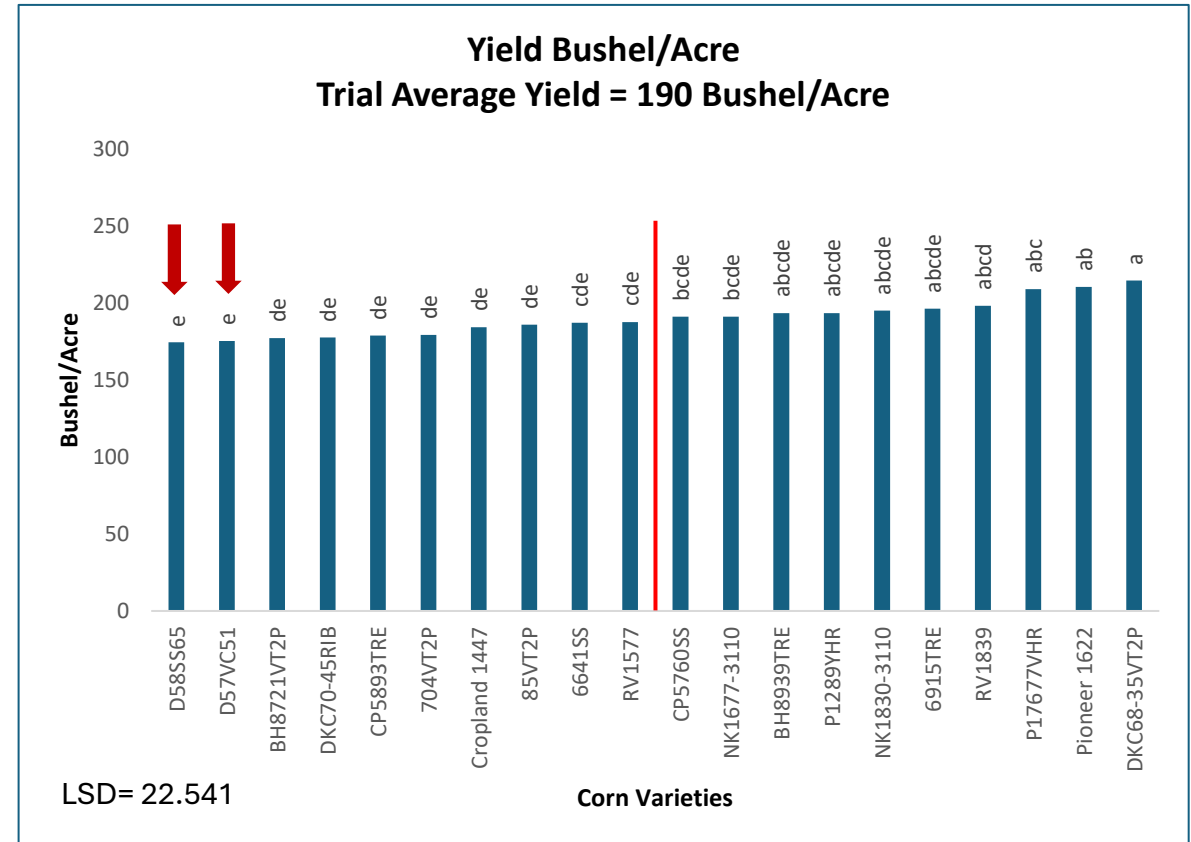


# Dynagro Corn Yield - Quincy and Live Oak

## Quincy

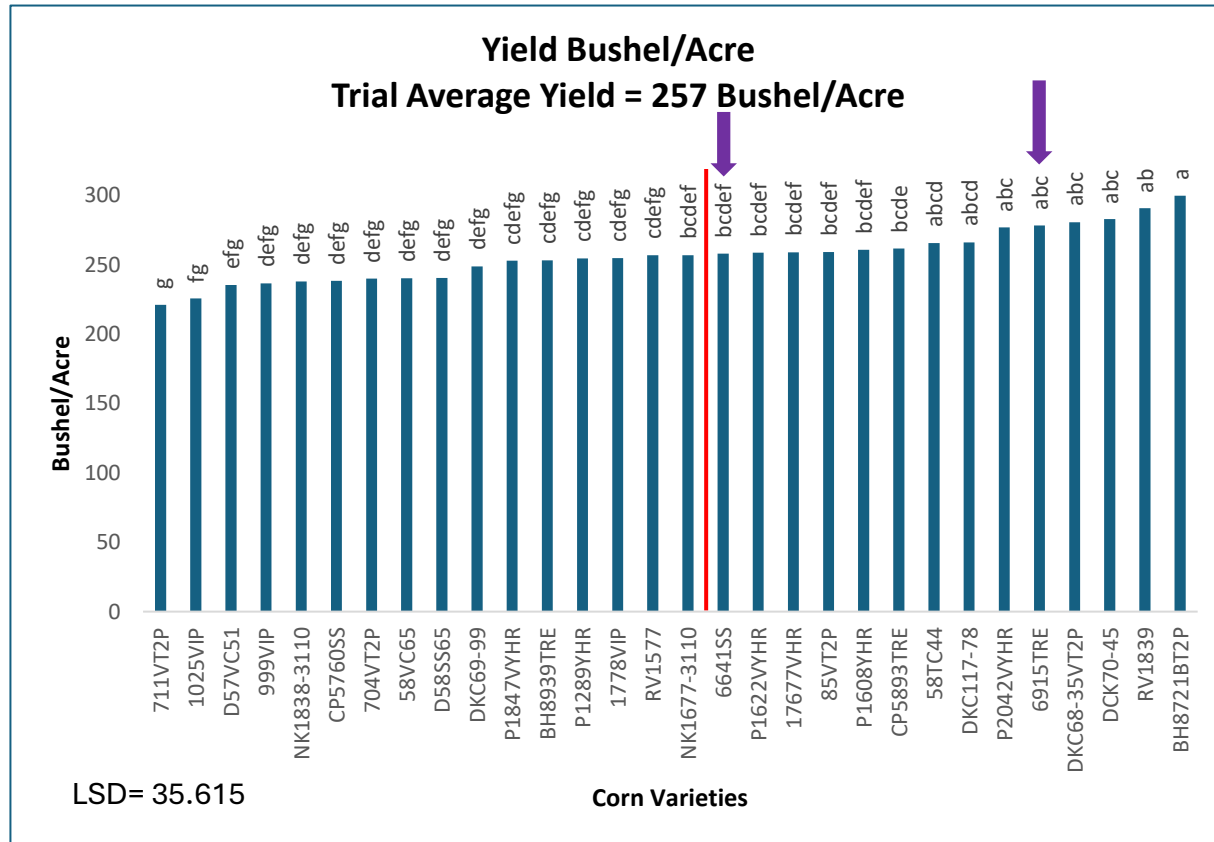


## Live Oak

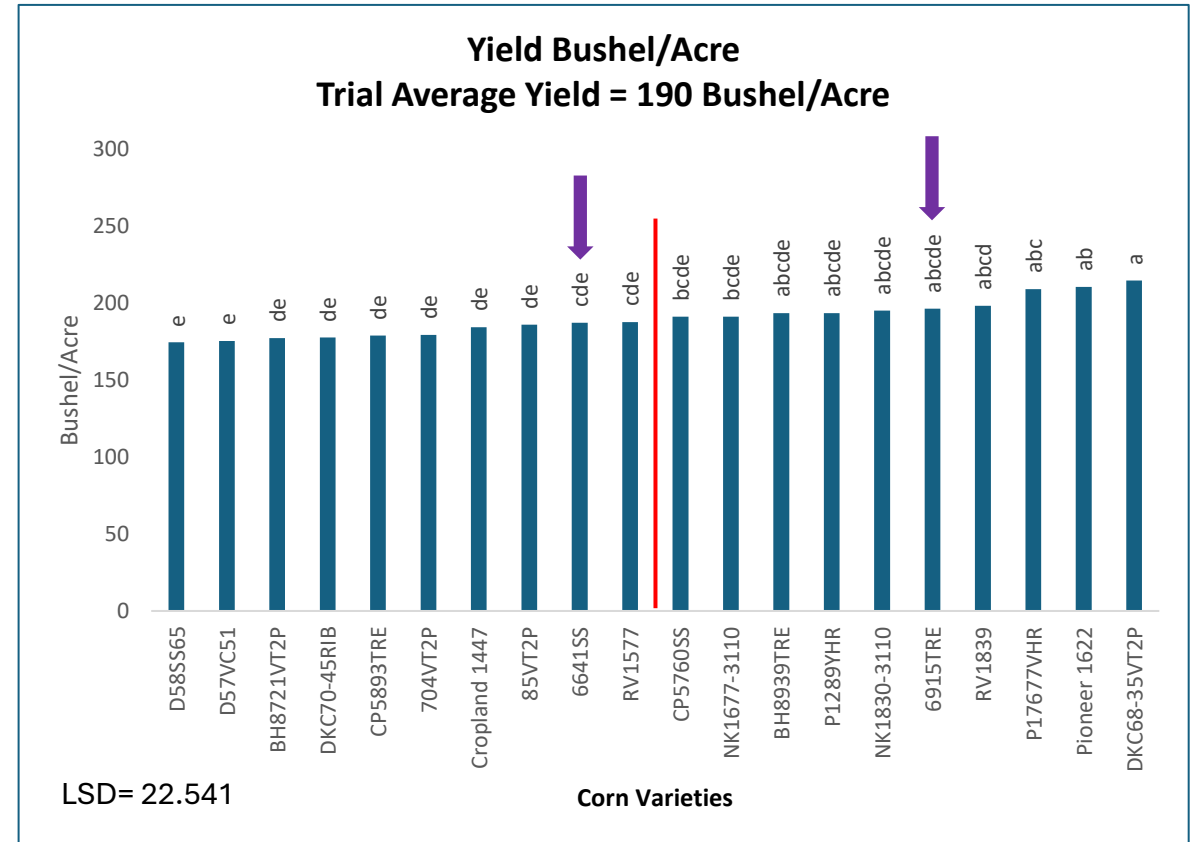


# Integra Corn Yield - Quincy and Live Oak

## Quincy

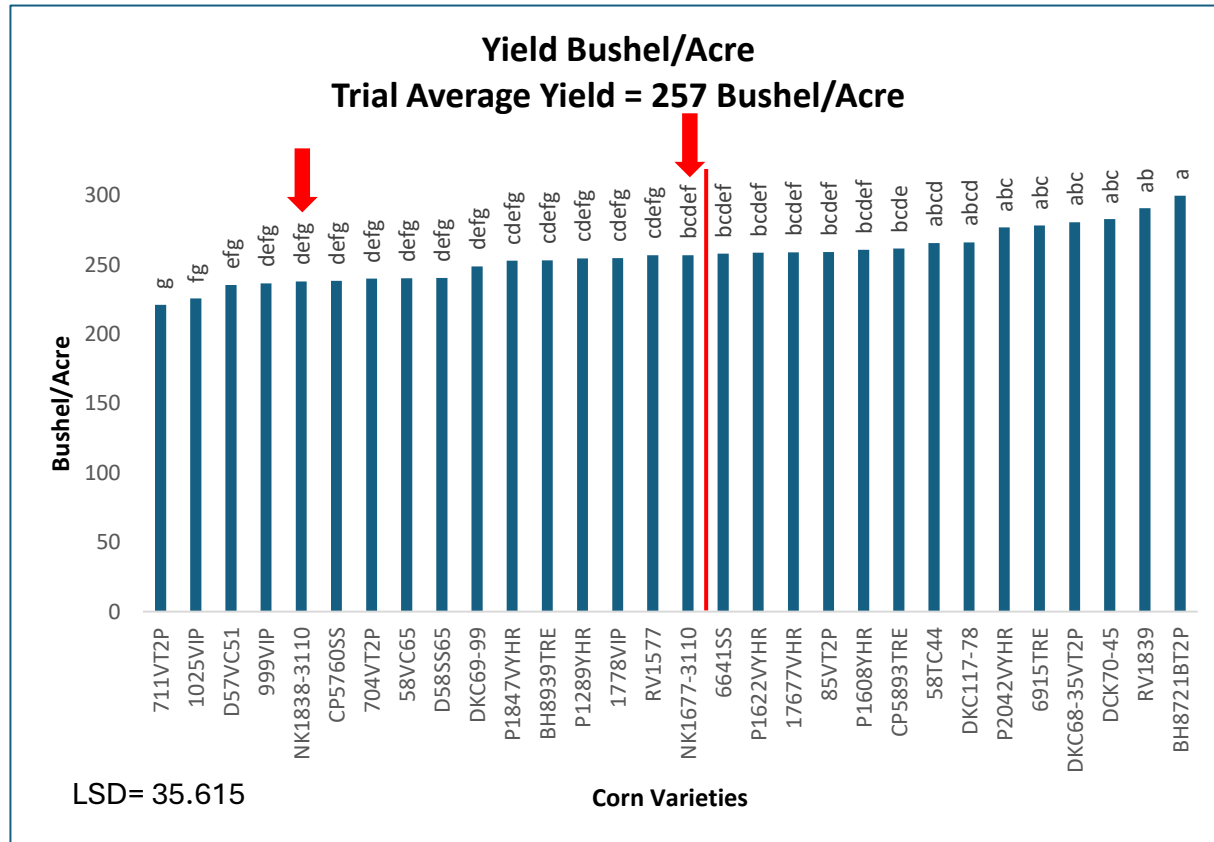


## Live Oak

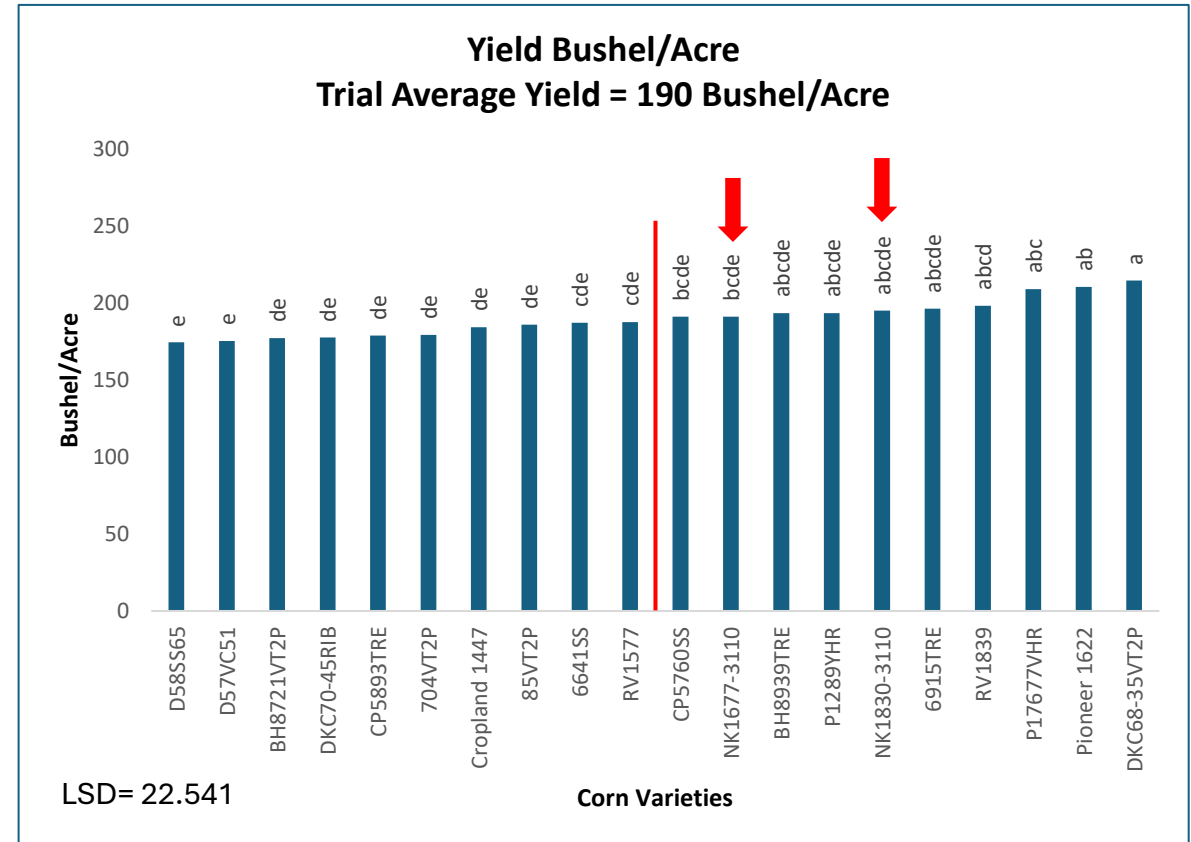


# NK Corn Yield - Quincy and Live Oak

## Quincy



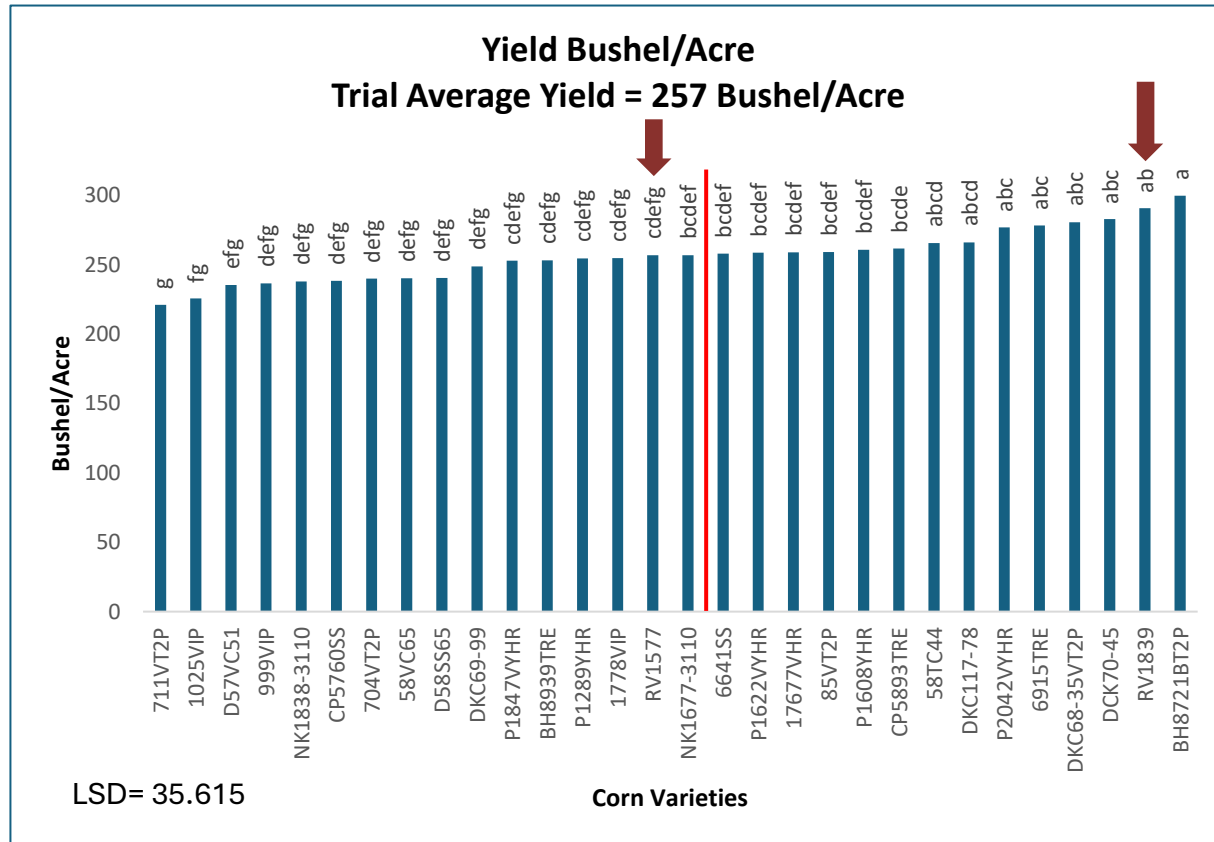
## Live Oak



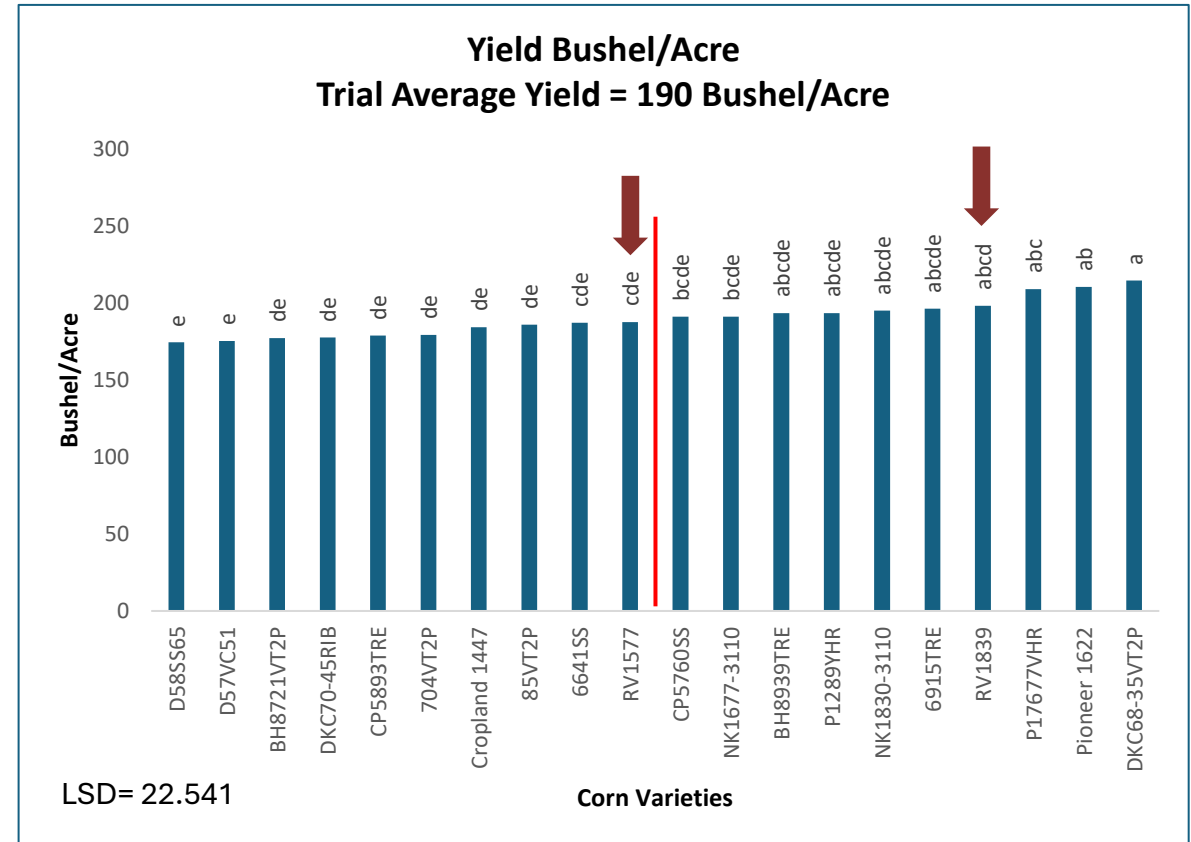


# Revere Corn Yield - Quincy and Live Oak

## Quincy

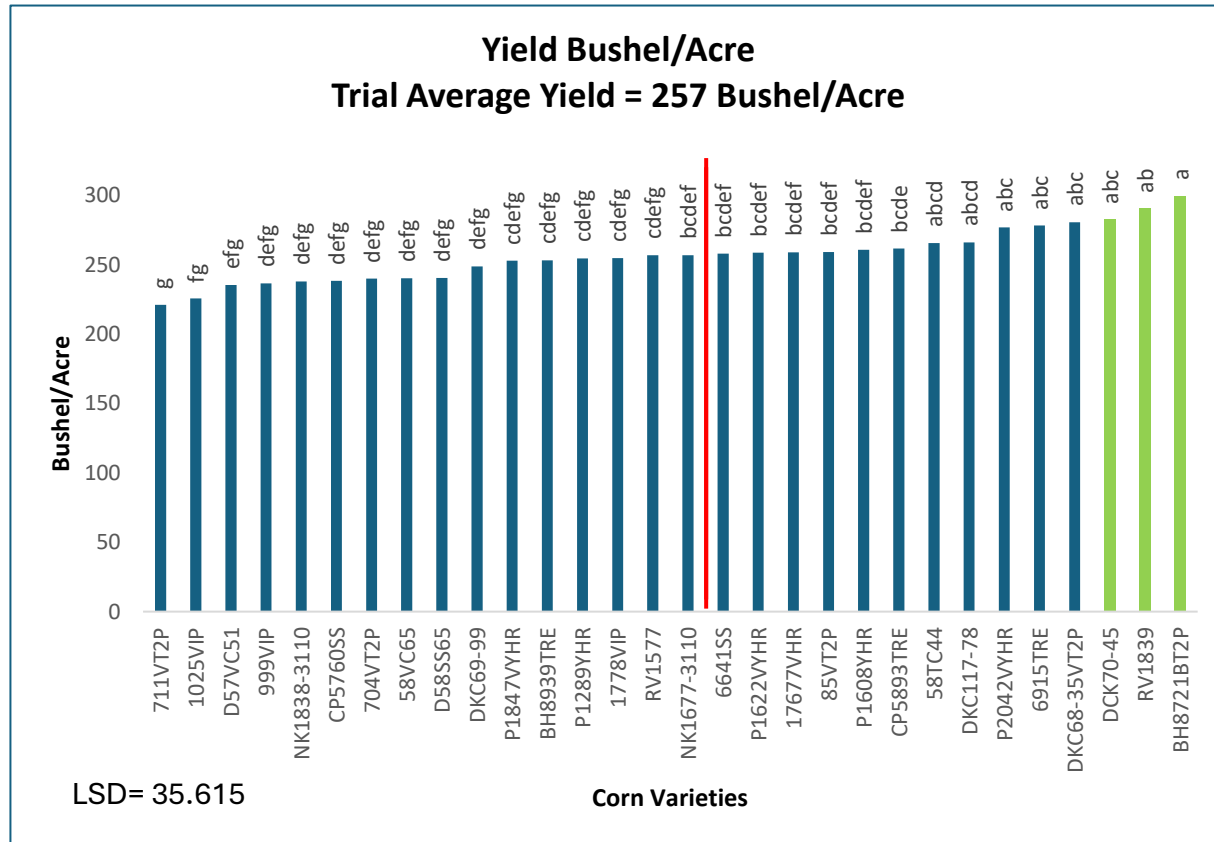


## Live Oak

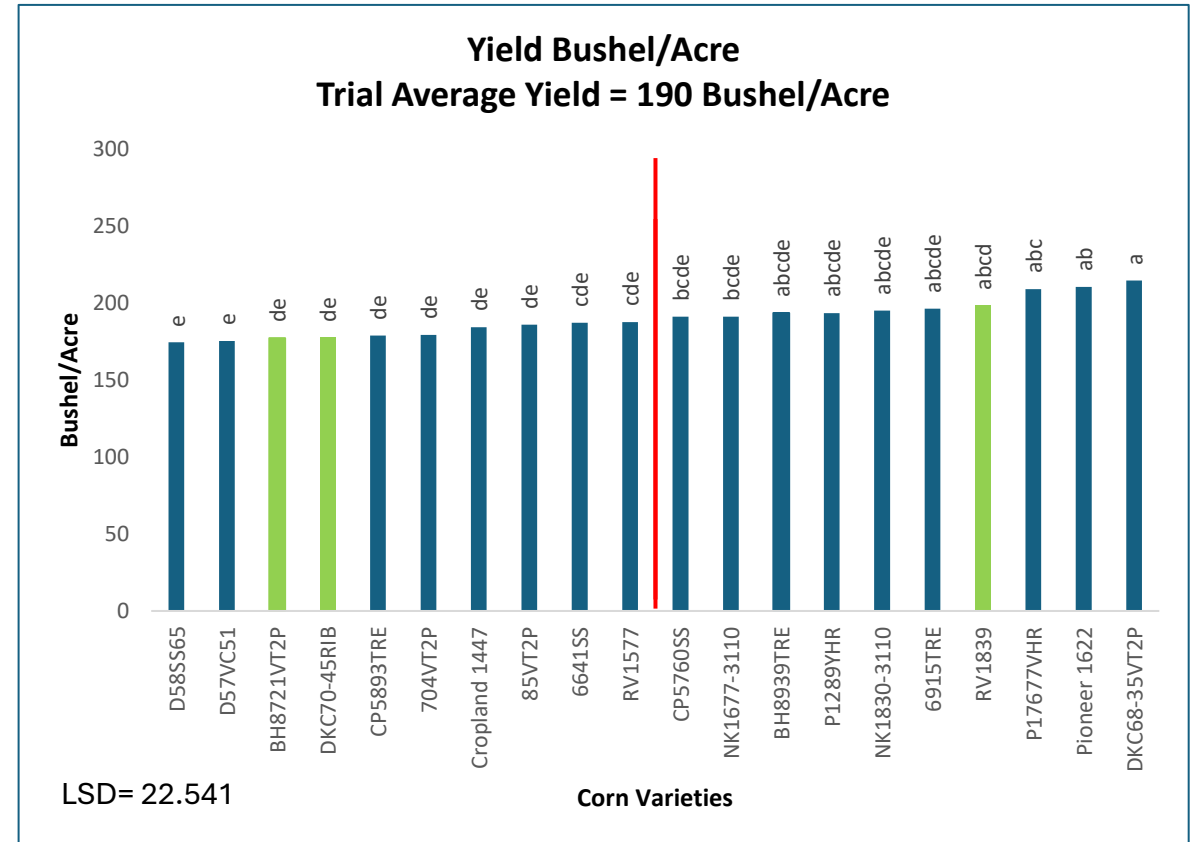


# Corn Yield - Quincy and Live Oak

## Quincy

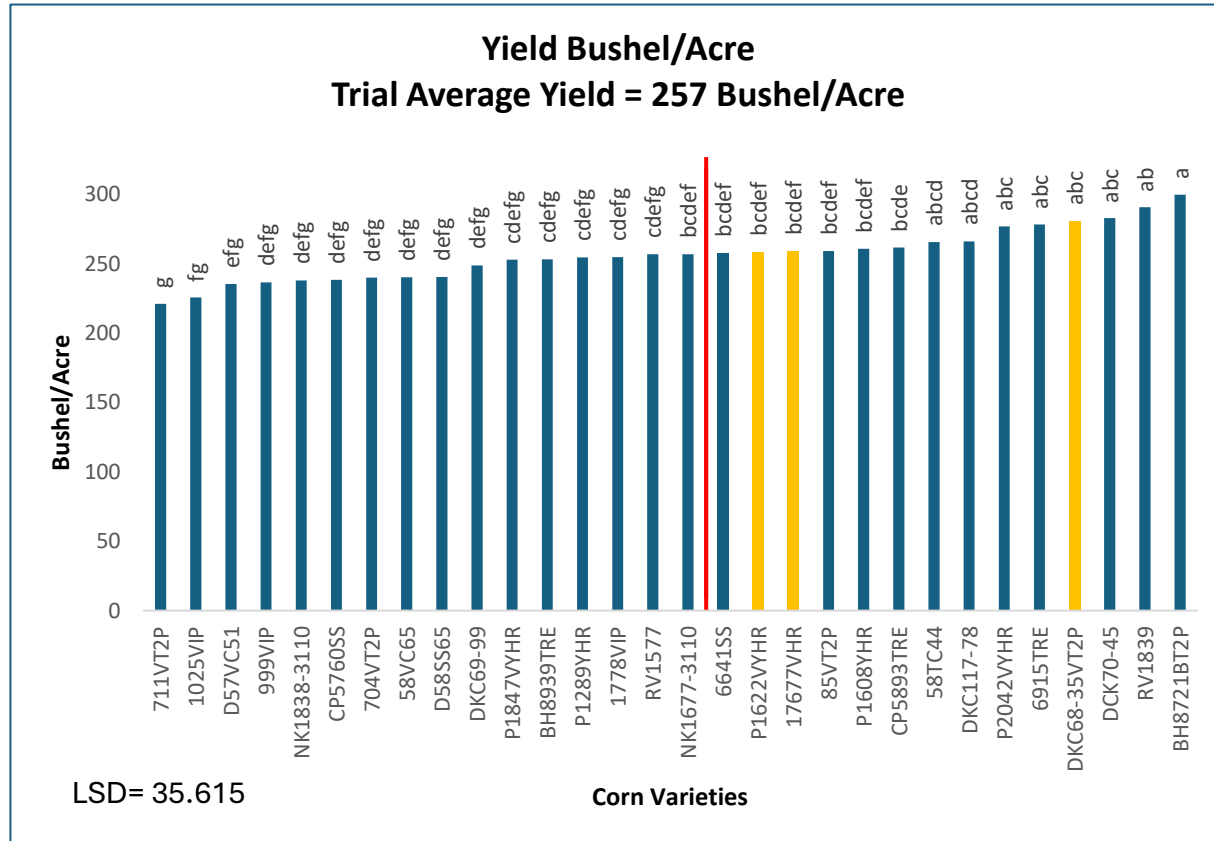


## Live Oak

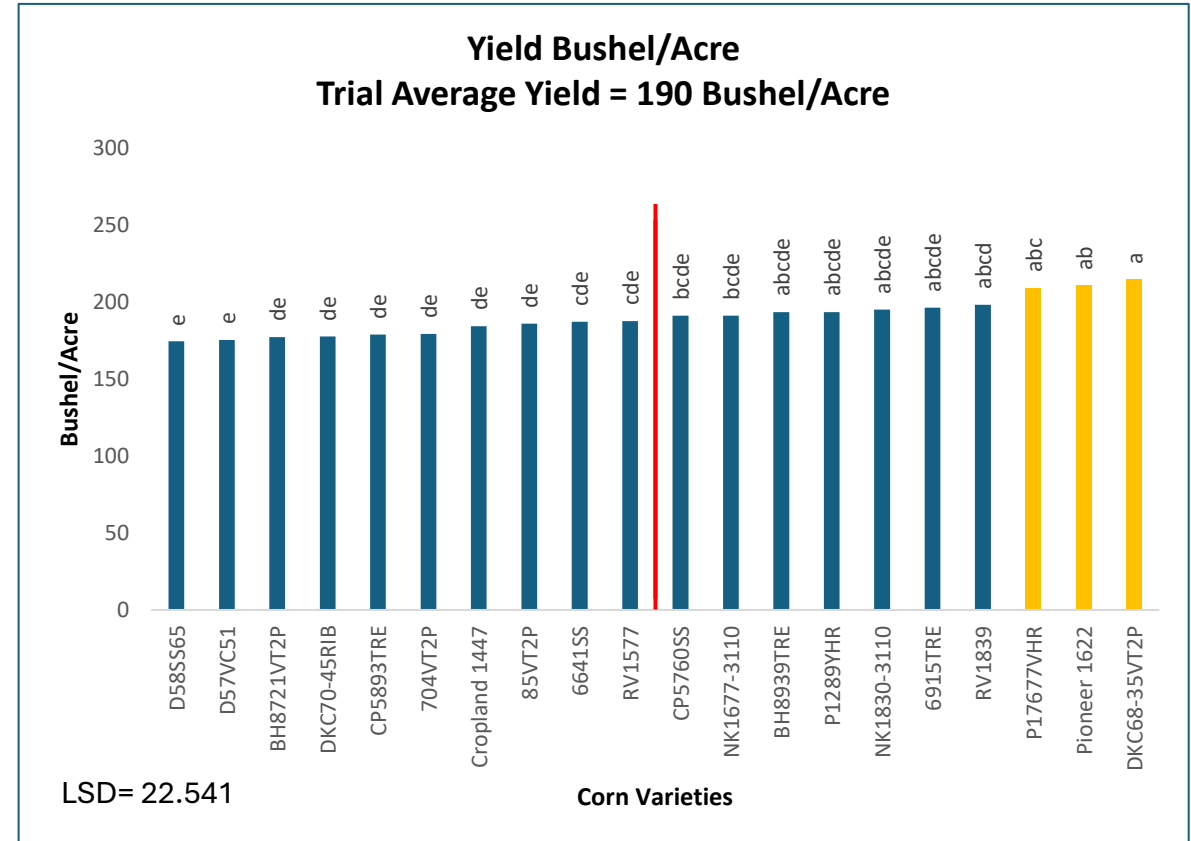


# Corn Yield - Quincy and Live Oak

## Quincy



## Live Oak





# Percentage of Kernel rows on the ear of ear - Quincy

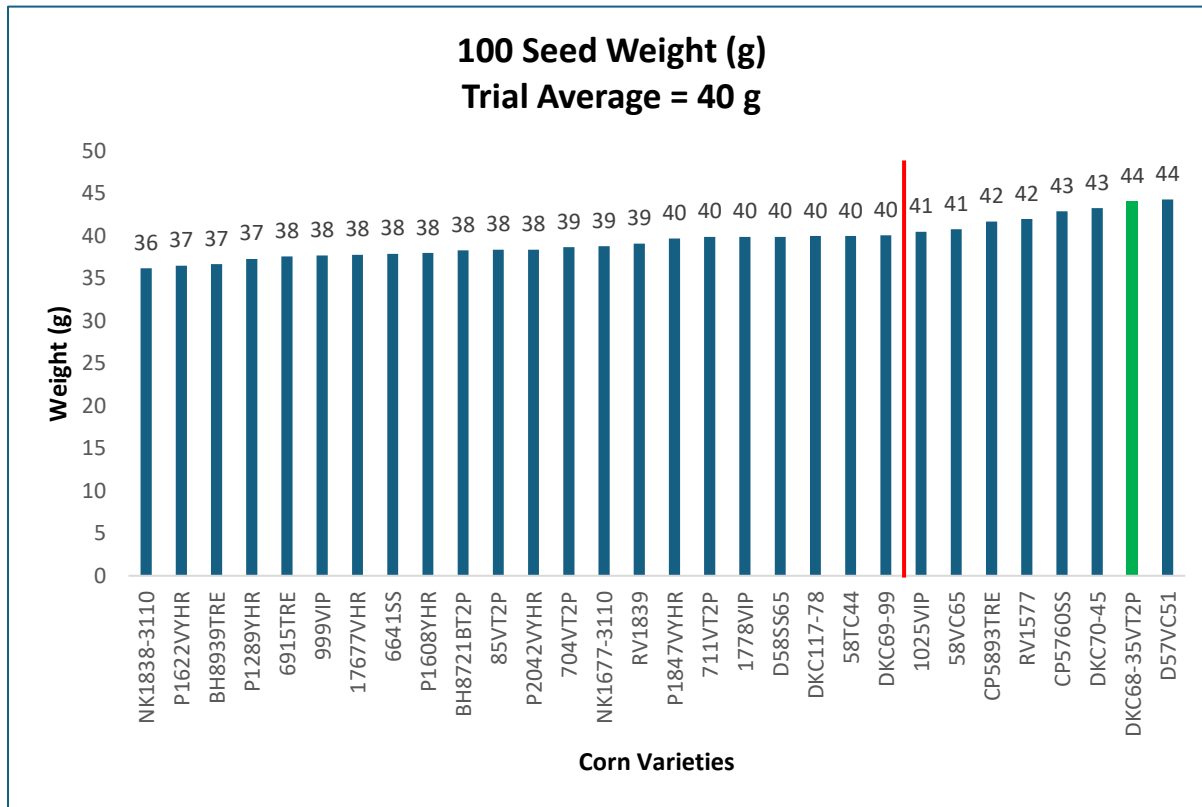
| Percentage of corn ear with 20, 18, 16, 14 and 12 rows in each corn variety |                |             |             |             |             |             |
|---|----------------|-------------|-------------|-------------|-------------|-------------|
| Company Names   | Corn Varieties | 20 rows (%) | 18 rows (%) | 16 rows (%) | 14 rows (%) | 12 rows (%) |
| Agratech  | 711VT2P        | 0           | 28          | 43          | 30          | 0           |
| Agratech  | 85VT2P         | 3           | 18          | 65          | 15          | 0           |
| Agratech  | 704VT2P        | 0           | 5           | 50          | 40          | 5           |
| Agratech  | 1778VIP        | 0           | 0           | 28          | 55          | 18          |
| Agratech  | 1025VIP        | 0           | 0           | 10          | 73          | 18          |
| Agratech  | 999VIP         | 0           | 23          | 43          | 35          | 0           |
| BH Genetics   | BH8721BT2P     | 3           | 35          | 48          | 15          | 0           |
| BH Genetics   | BH8939TRE      | 0           | 25          | 53          | 23          | 0           |
| Croplan   | CP5760SS       | 0           | 10          | 45          | 43          | 3           |
| Croplan   | CP5893TRE      | 0           | 3           | 60          | 35          | 3           |
| Dekalb  | DKC117-78      | 0           | 0           | 20          | 68          | 13          |
| Dekalb  | DKC69-99       | 0           | 13          | 55          | 28          | 5           |
| Dekalb  | DKC70-45       | 3           | 38          | 53          | 8           | 0           |
| Dekalb  | DKC68-35VT2P   | 0           | 3           | 50          | 45          | 3           |
| Dynagro   | D58SS65        | 0           | 18          | 45          | 35          | 3           |
| Dynagro   | D57VC51        | 0           | 10          | 30          | 55          | 5           |
| Dynagro   | 58VC65         | 0           | 10          | 40          | 48          | 3           |
| Dynagro   | 58TC44         | 0           | 3           | 45          | 40          | 13          |
| Integra   | 6915TRE        | 3           | 38          | 48          | 13          | 0           |
| Integra   | 6641SS         | 0           | 20          | 55          | 25          | 0           |
| NK  | NK1677-3110    | 0           | 30          | 58          | 10          | 3           |
| NK  | NK1838-3110    | 0           | 5           | 33          | 53          | 10          |
| Pioneer   | P17677VHR      | 5           | 45          | 43          | 8           | 0           |
| Pioneer   | P1289YHR       | 3           | 35          | 48          | 13          | 3           |
| Pioneer   | P1847VYHR      | 0           | 10          | 55          | 30          | 5           |
| Pioneer   | P1622VYHR      | 0           | 15          | 48          | 25          | 15          |
| Pioneer   | P2042VYHR      | 0           | 23          | 68          | 10          | 0           |
| Pioneer   | P1608YHR       | 3           | 25          | 60          | 15          | 0           |
| Revere  | RV1839         | 0           | 23          | 63          | 15          | 0           |
| Revere  | RV1577         | 0           | 3           | 33          | 58          | 8           |

# Percentage of Kernel rows on the ear of ear – Live Oak

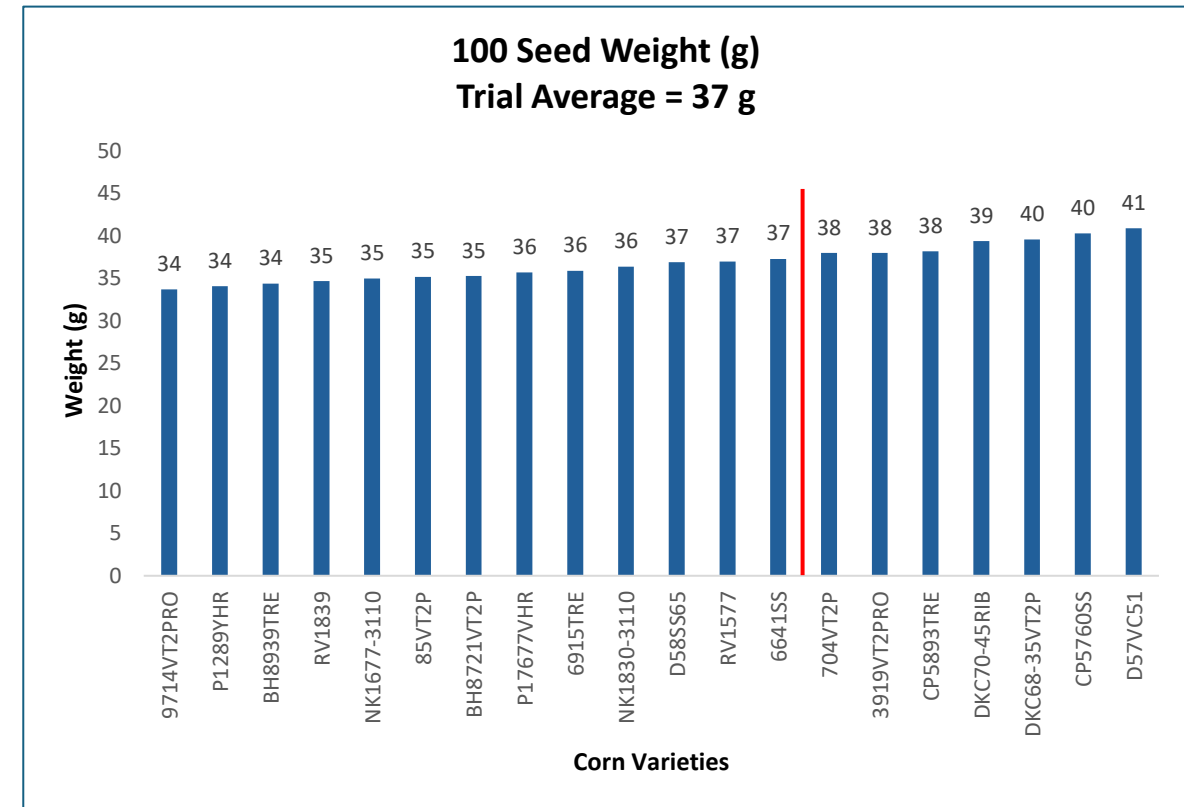
| Percentage of corn ear with 20, 18, 16, 14 and 12 rows in each corn variety |                |             |             |             |             |             |
|---|----------------|-------------|-------------|-------------|-------------|-------------|
| Company Names   | Corn Varieties | 20 rows (%) | 18 rows (%) | 16 rows (%) | 14 rows (%) | 12 rows (%) |
| Agratech  | 704VT2P        | 3           | 10          | 45          | 35          | 8           |
| Agratech  | 85VT2P         | 5           | 33          | 53          | 10          | 0           |
| BH Genetics   | BH8721VT2P     | 5           | 18          | 58          | 15          | 0           |
| BH Genetics   | BH8939TRE      | 13          | 25          | 28          | 28          | 8           |
| Croplan   | CP5760SS       | 3           | 10          | 48          | 35          | 5           |
| Croplan   | CP5893TRE      | 3           | 20          | 53          | 20          | 5           |
| Dekalb  | DKC70-45RIB    | 13          | 43          | 35          | 10          | 0           |
| Dekalb  | DKC68-35VT2P   | 3           | 13          | 53          | 28          | 3           |
| Dynagro   | D58SS65        | 0           | 25          | 48          | 25          | 3           |
| Dynagro   | D57VC51        | 0           | 3           | 40          | 50          | 8           |
| Integra   | 6915TRE        | 23          | 35          | 38          | 5           | 0           |
| Integra   | 6641SS         | 10          | 30          | 38          | 13          | 10          |
| NK  | NK1677-3110    | 13          | 38          | 43          | 8           | 0           |
| NK  | NK1830-3110    | 0           | 10          | 58          | 28          | 5           |
| Pioneer   | P1622VYHR      | 0           | 8           | 50          | 28          | 15          |
| Pioneer   | P17677VHR      | 3           | 28          | 45          | 23          | 3           |
| Pioneer   | P1289YHR       | 8           | 30          | 53          | 10          | 0           |
| Revere  | RV1839         | 13          | 58          | 30          | 0           | 0           |
| Revere  | RV1577         | 0           | 10          | 33          | 45          | 13          |

# Corn 100 Seed Weight - Quincy and Live Oak

## Quincy



## Live Oak

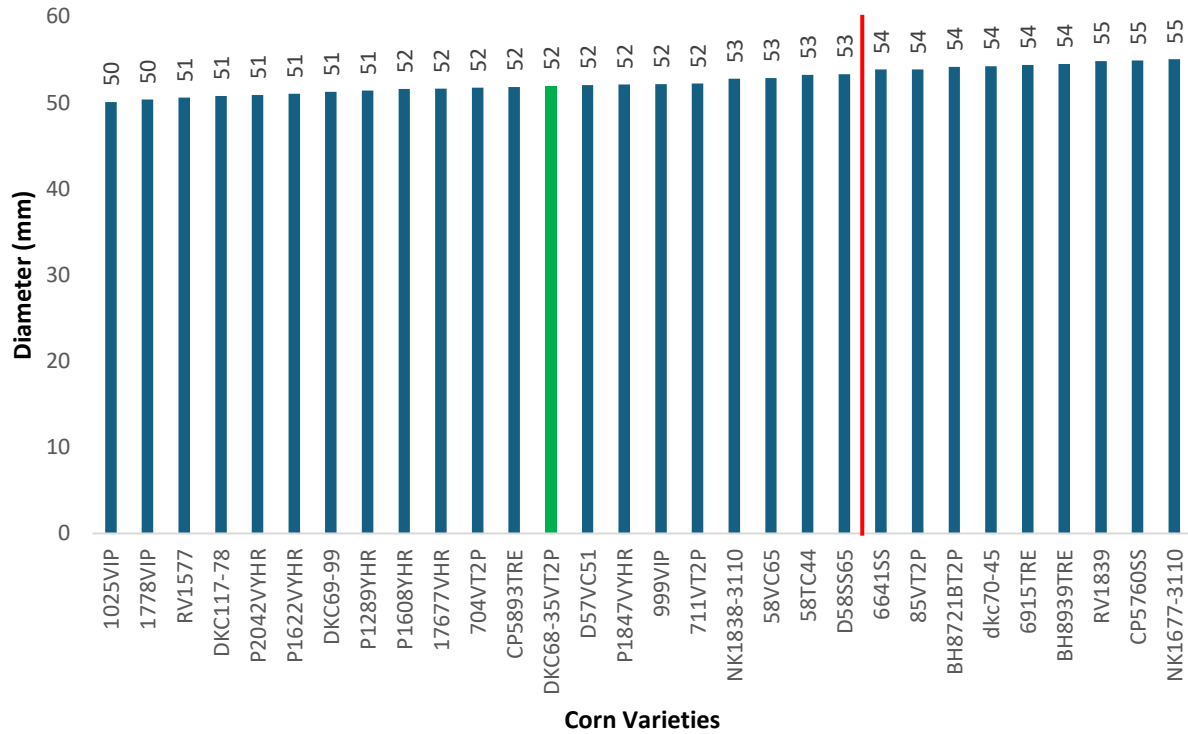




# Corn Ear Diameter - Quincy and Live Oak

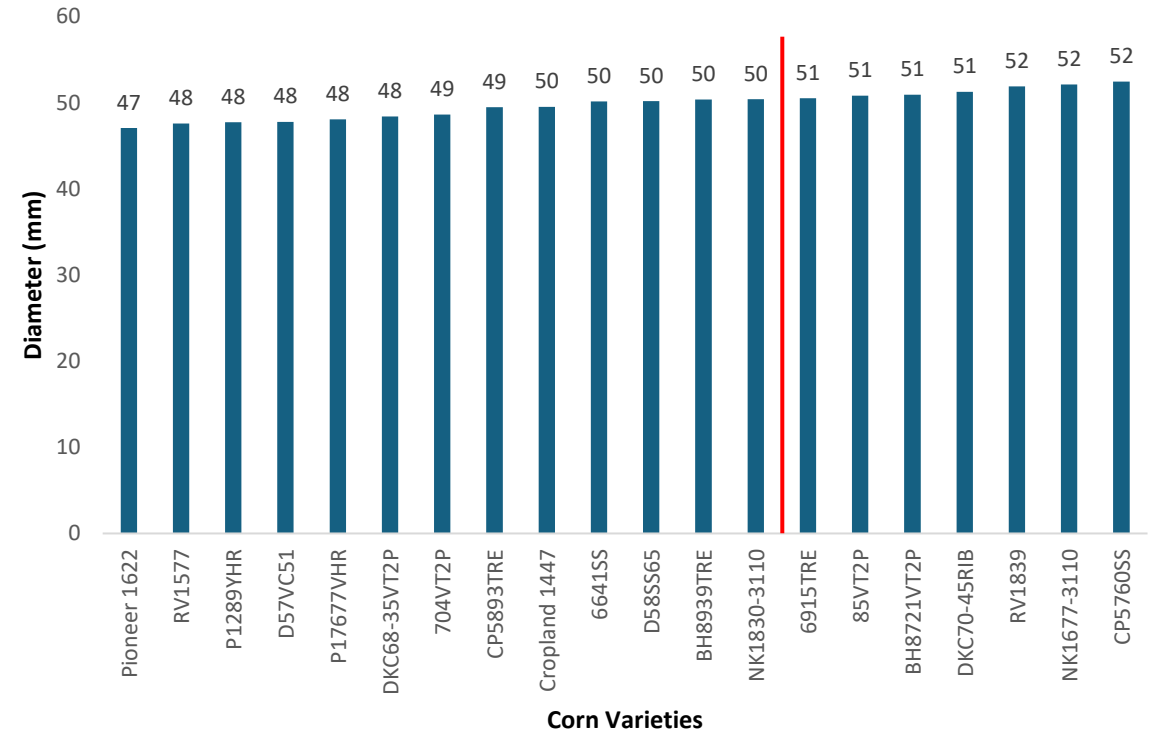
## Quincy

Corn Ear Diameter (mm)  
Trial Average = 53 mm



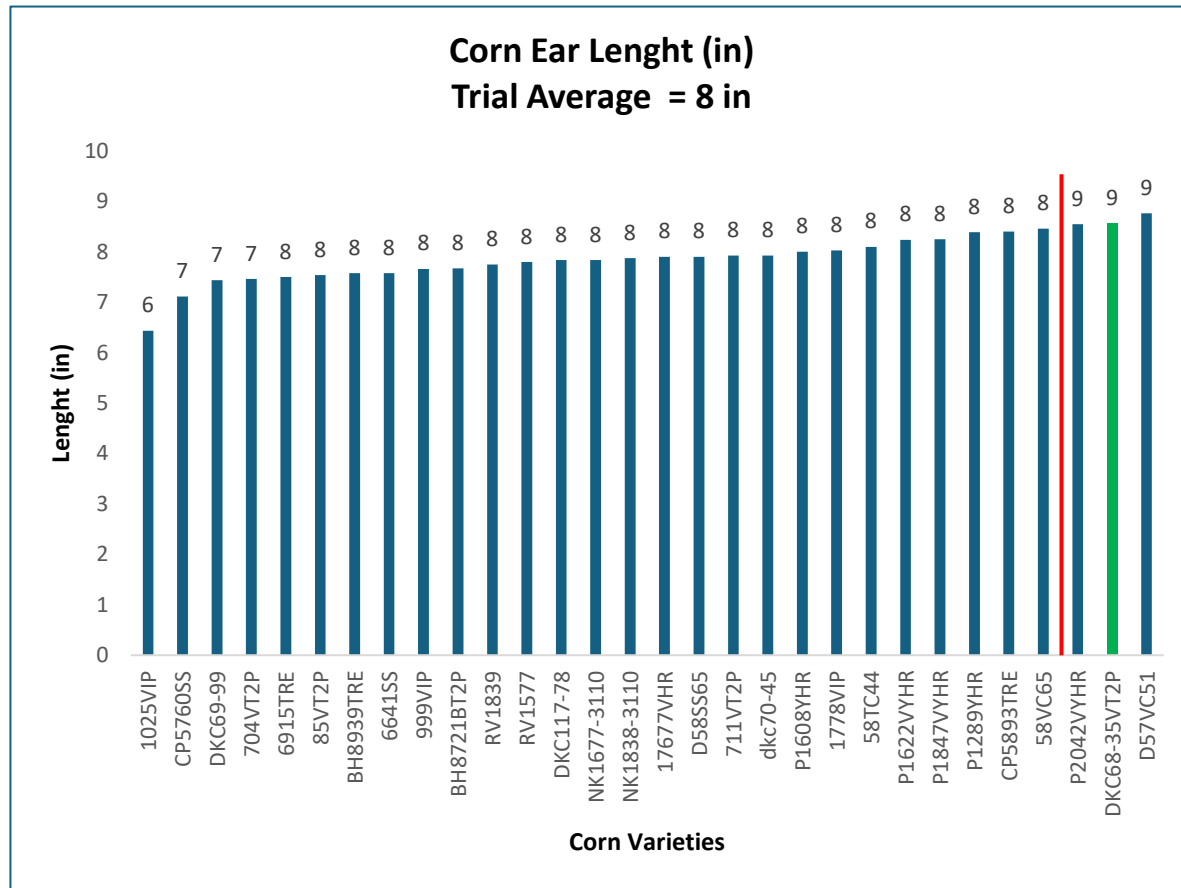
## Live Oak

Corn Ear Diameter (mm)  
Trial Average = 50 mm

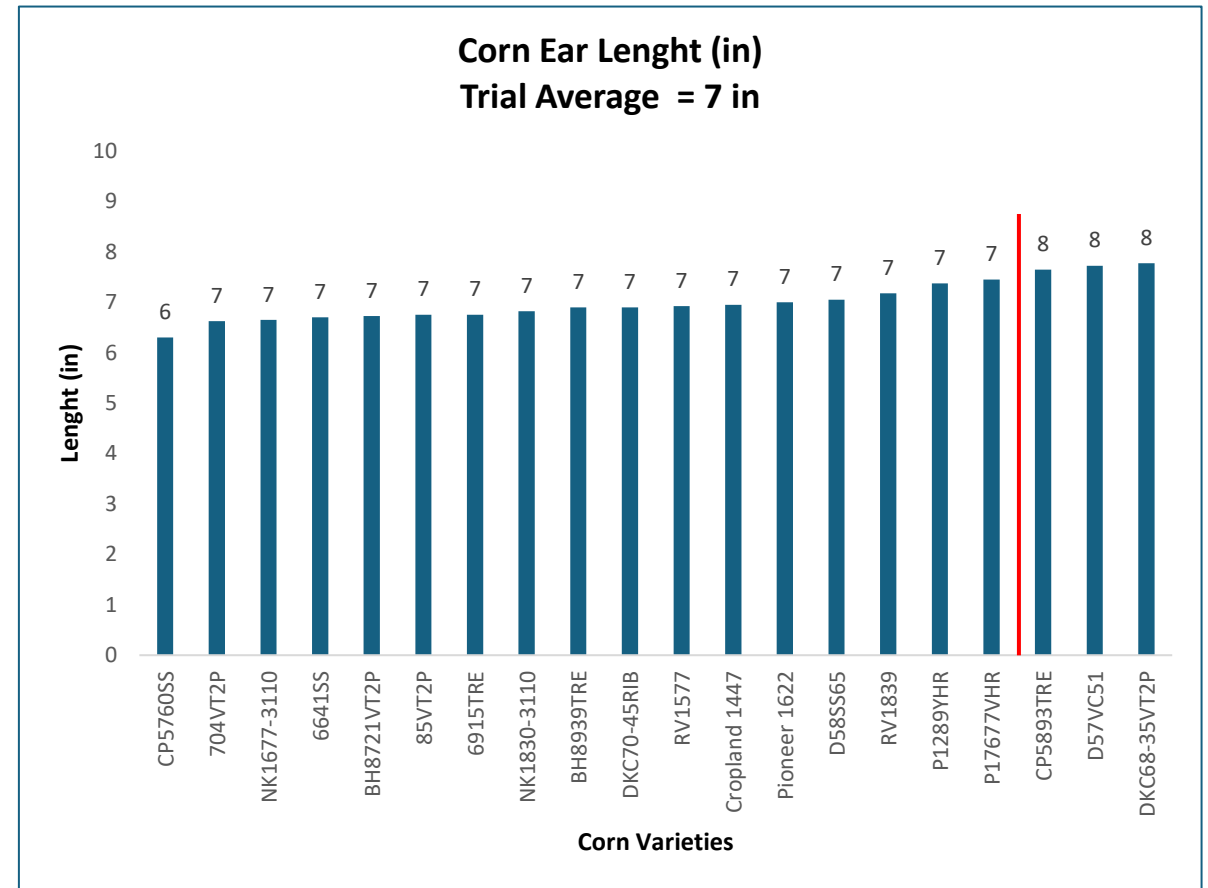


# Corn Ear Length - Quincy and Live Oak

## Quincy



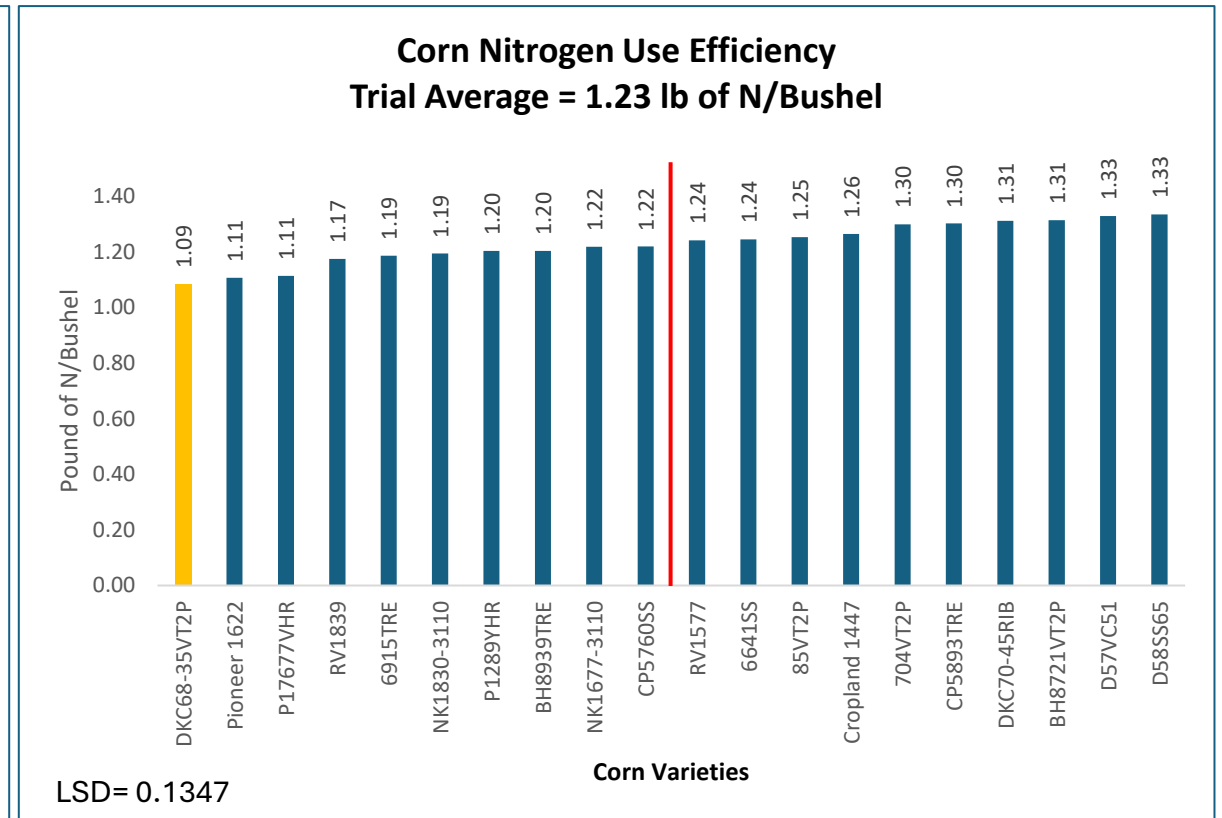
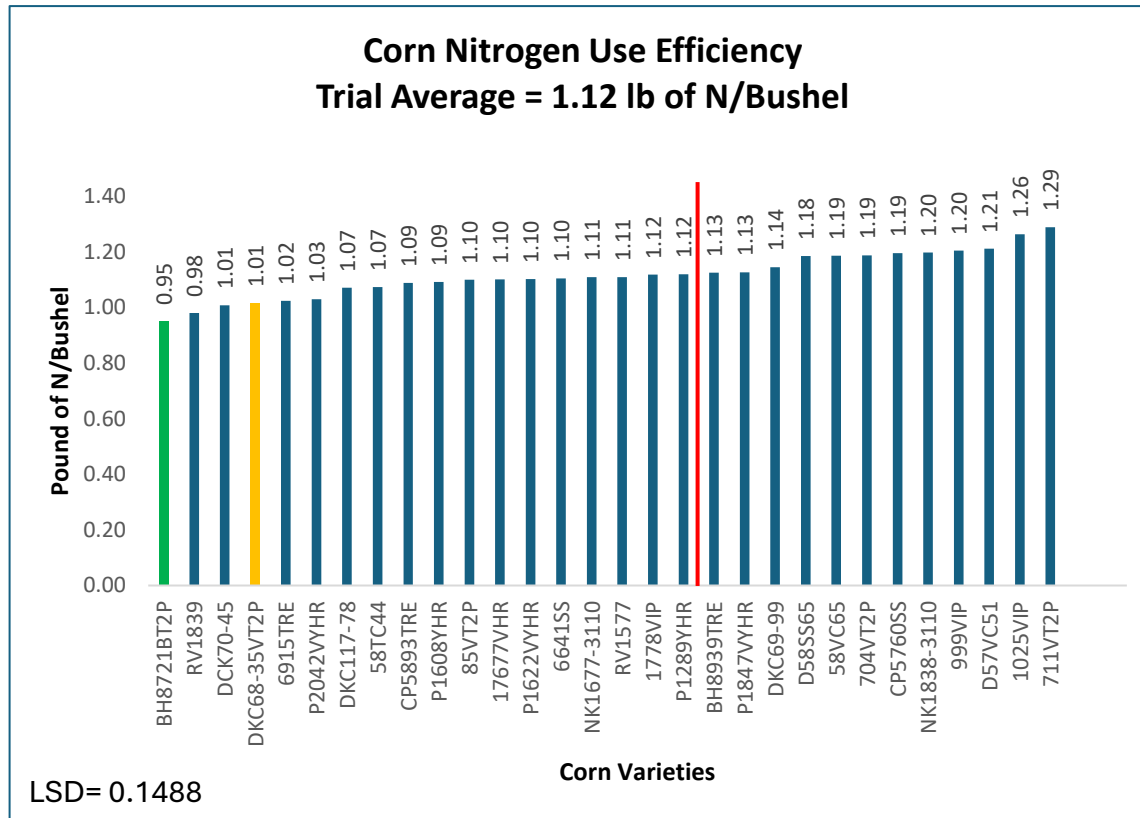
## Live Oak



# Corn Nitrogen Use Efficiency - Quincy and Live Oak

Quincy

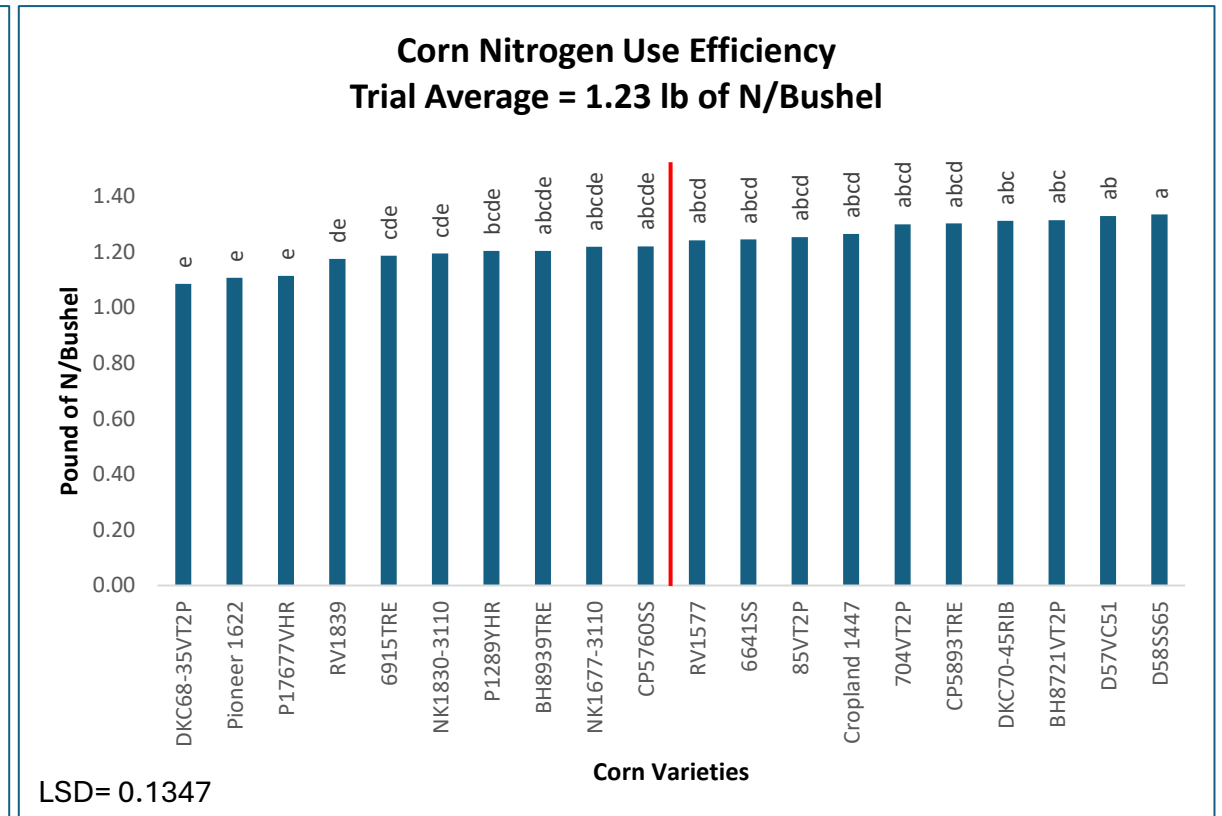
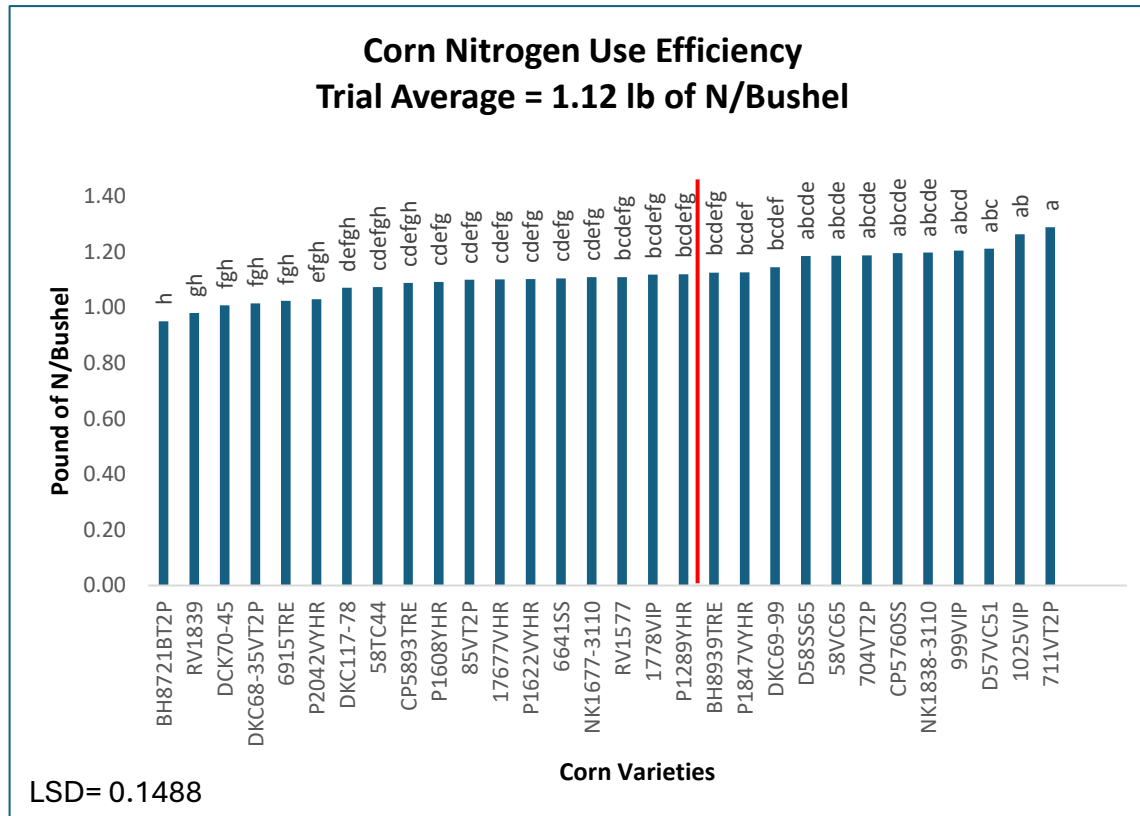
Live Oak



# Corn Nitrogen Use Efficiency - Quincy and Live Oak

Quincy

Live Oak





# Quincy Field After Storm in May





# Nitrogen Application in Corn Trials

➤ NFREC-SV, Live-Oak, FL

➤ 5 Corn Varieties:

Dekalb 7045, Dekalb 6835, Pioneer 2042,  
Pioneer 1847, and Pioneer 1608

➤ 4 Nitrogen Rates: 200, 250, 300 and 350  
lbs/acre



# Evaluating the performance of different corn variety under variable N rates

## Treatments

| Varieties (5)  |
|----------------|
| • Dekalb 7045  |
| • Dekalb 6835  |
| • Pioneer 2042 |
| • Pioneer 1608 |
| • Pioneer 1847 |

| Nitrogen rates (4) |
|--------------------|
| • 200 lbs/ac       |
| • 250 lbs/ac       |
| • 300 lbs/ac       |
| • 350 lbs/ac       |

### Nitrogen application (5 splits)

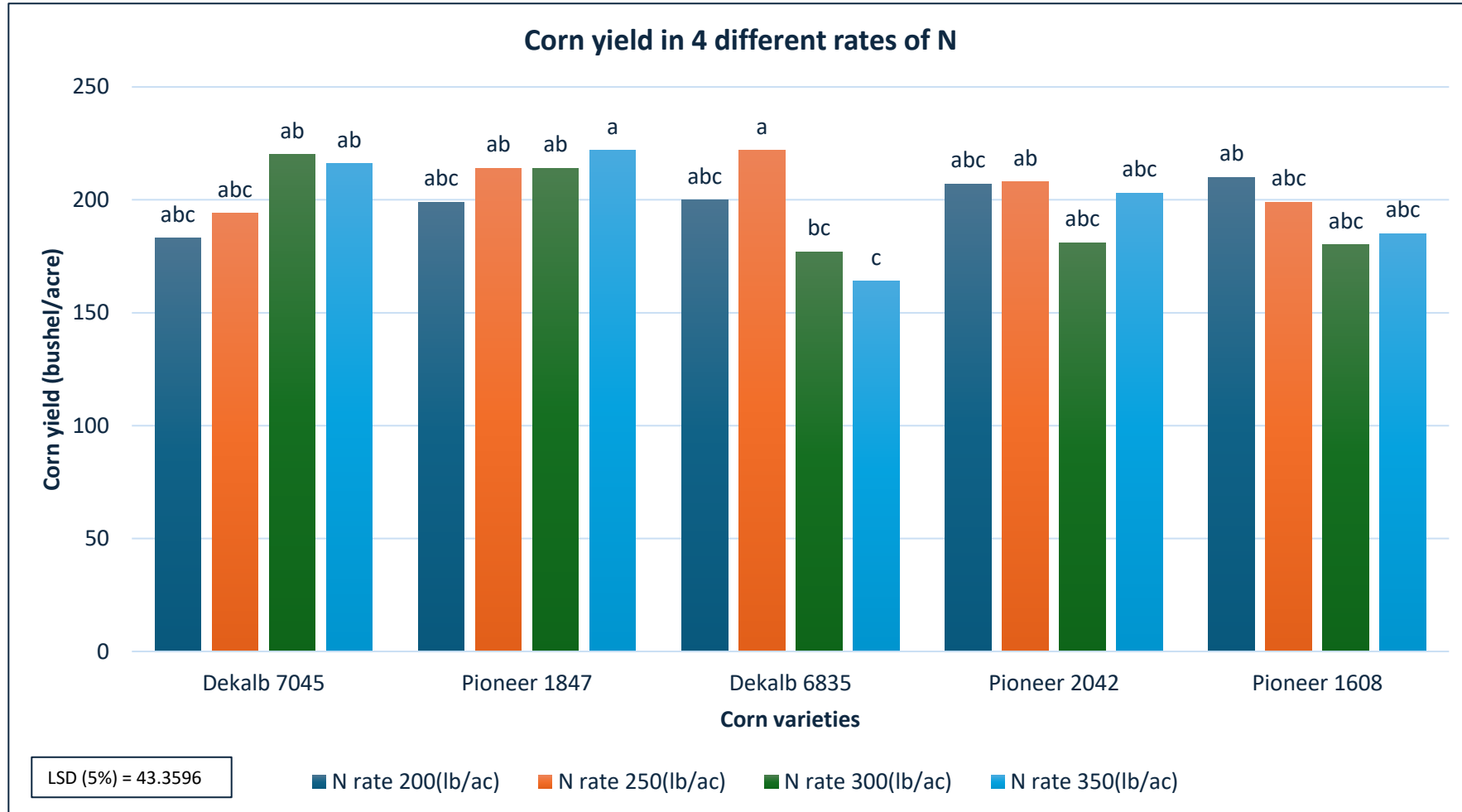
- 30 lbs/ac of N was applied as starter application on 04-25-2024. All the other N application was side dressing using highboy

| N Rate | 200 lbs/ac | 250 lbs/ac | 300 lbs/ac | 350 lbs/ac |
|--------|------------|------------|------------|------------|
| V5     | 40         | 50         | 60         | 70         |
| V8-V10 | 40         | 50         | 70         | 70         |
| V12    | 50         | 70         | 80         | 110        |
| VT     | 40         | 50         | 60         | 70         |

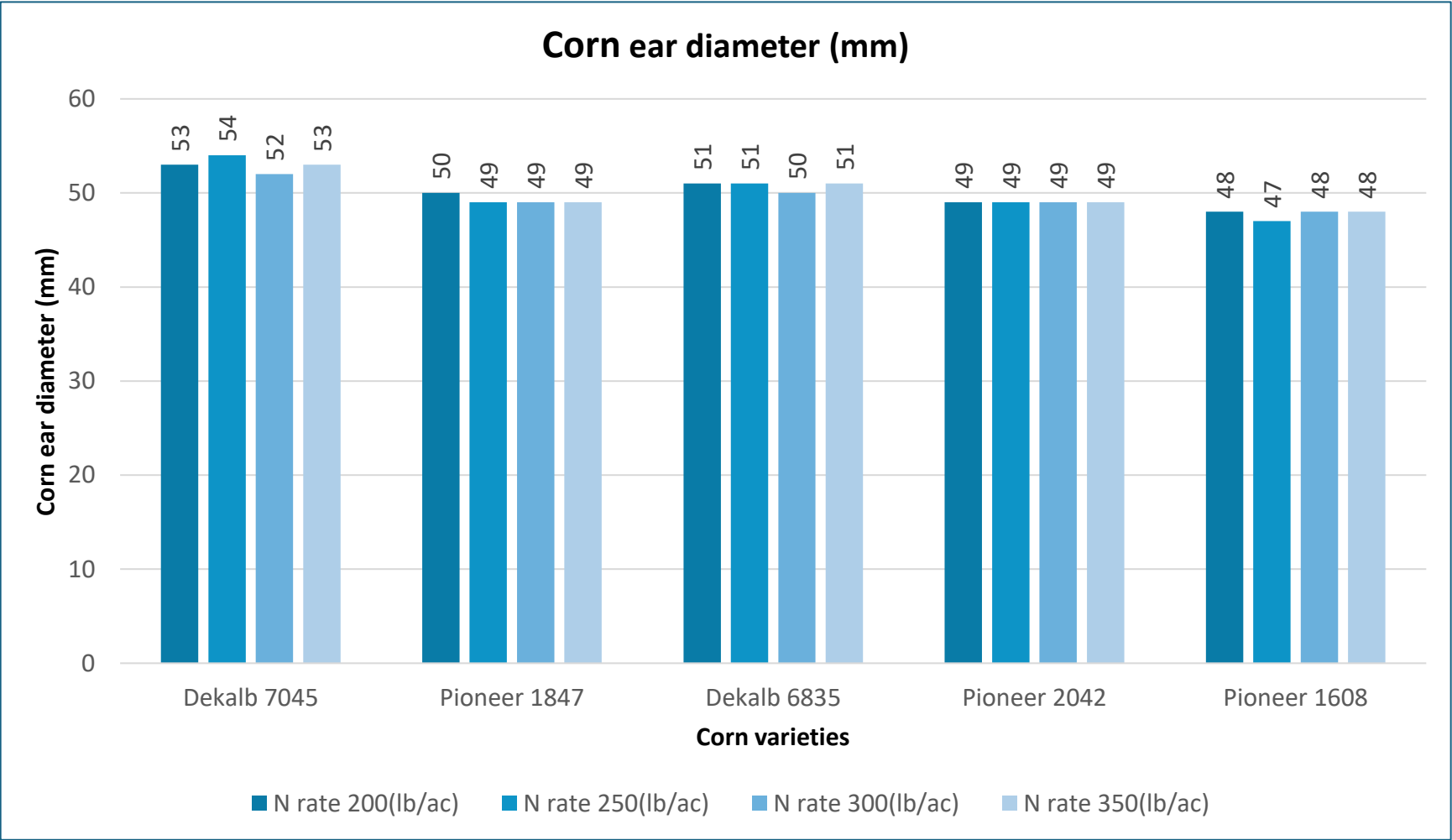
The trial was in the RCBD design with 4 replications



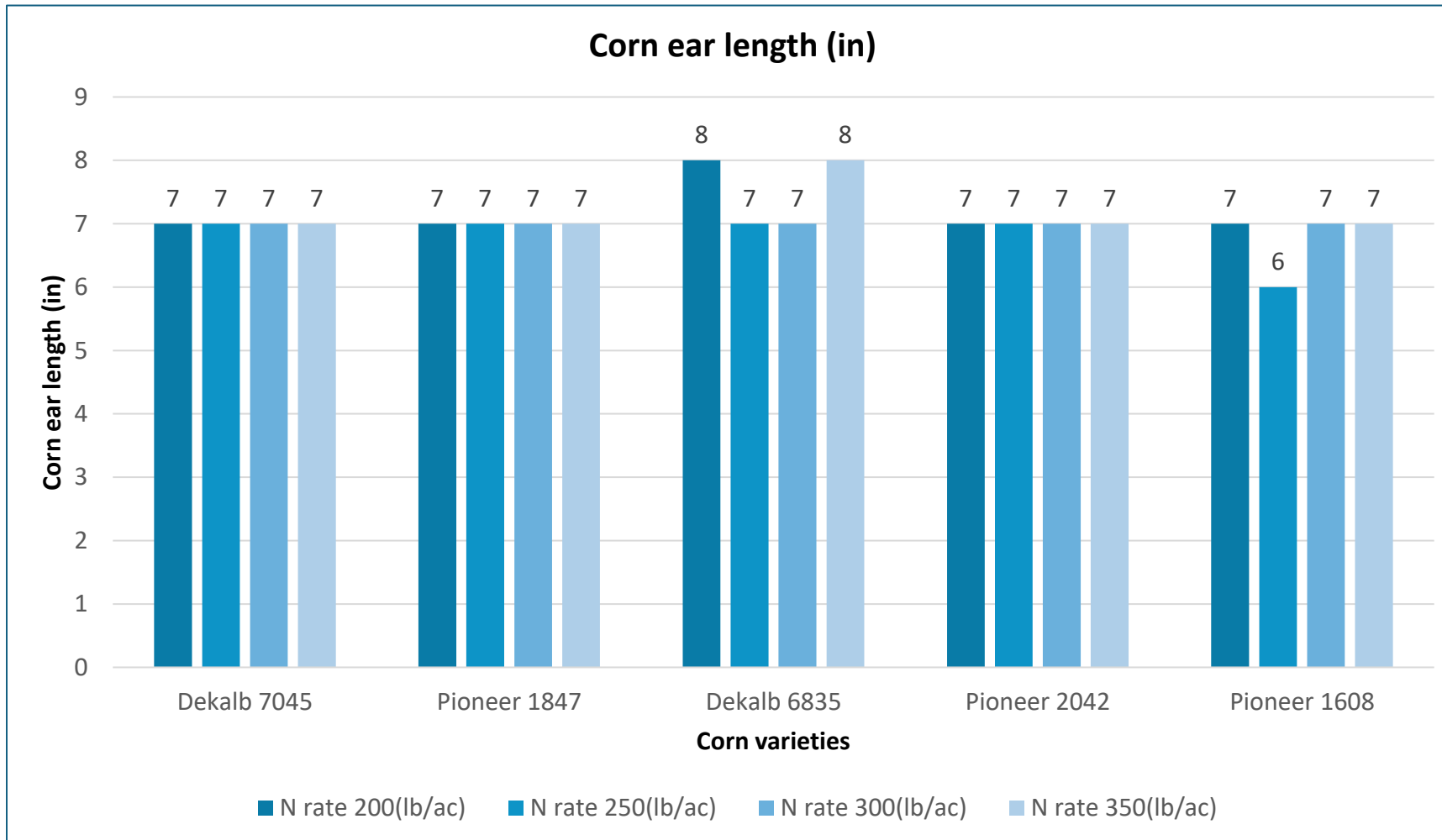
# Nitrogen Rates Corn Trials



# Nitrogen Rates Corn Trials – Corn Ear Diameter

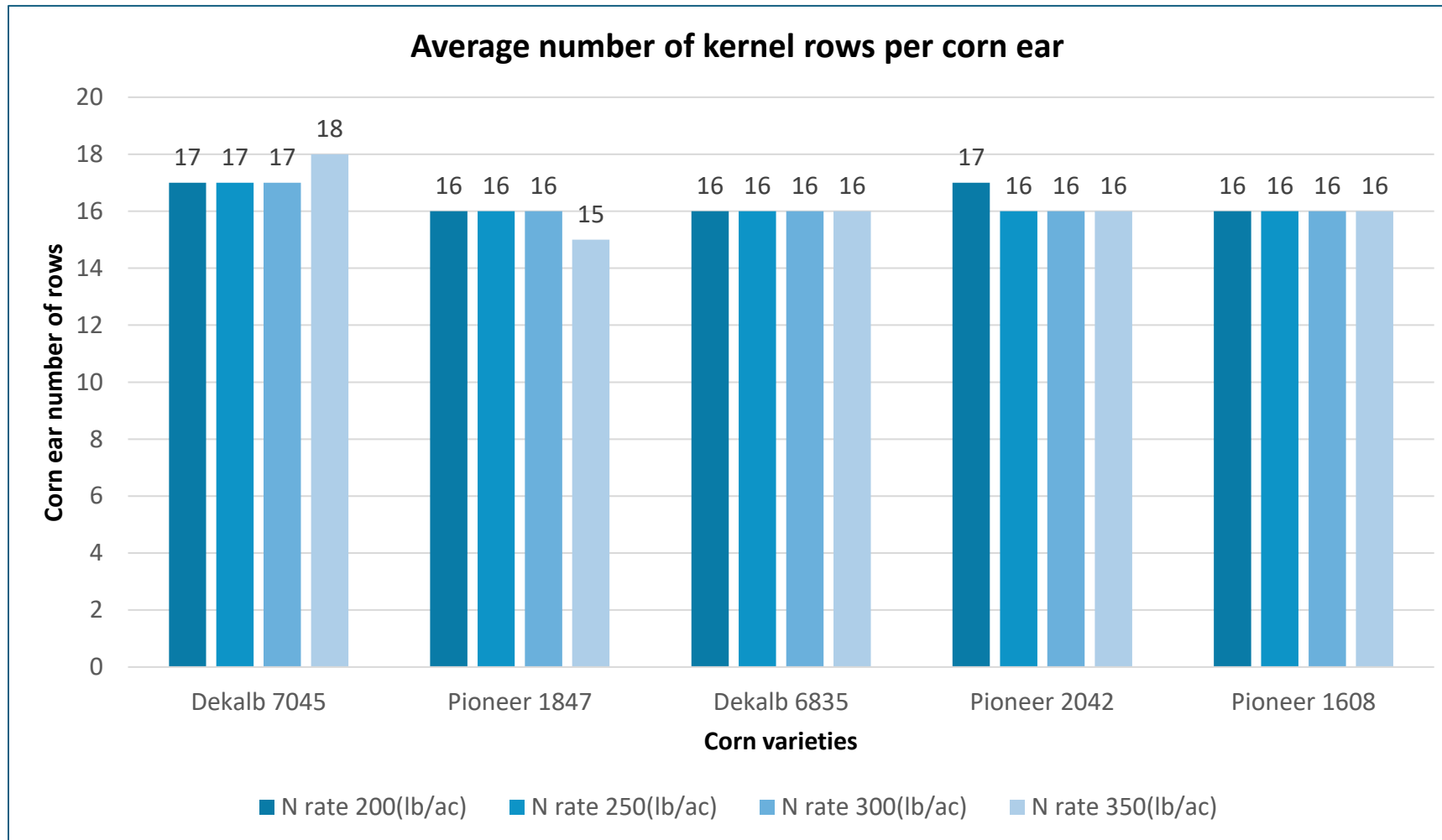


# Nitrogen Rates Corn Trials - Corn Ear Length

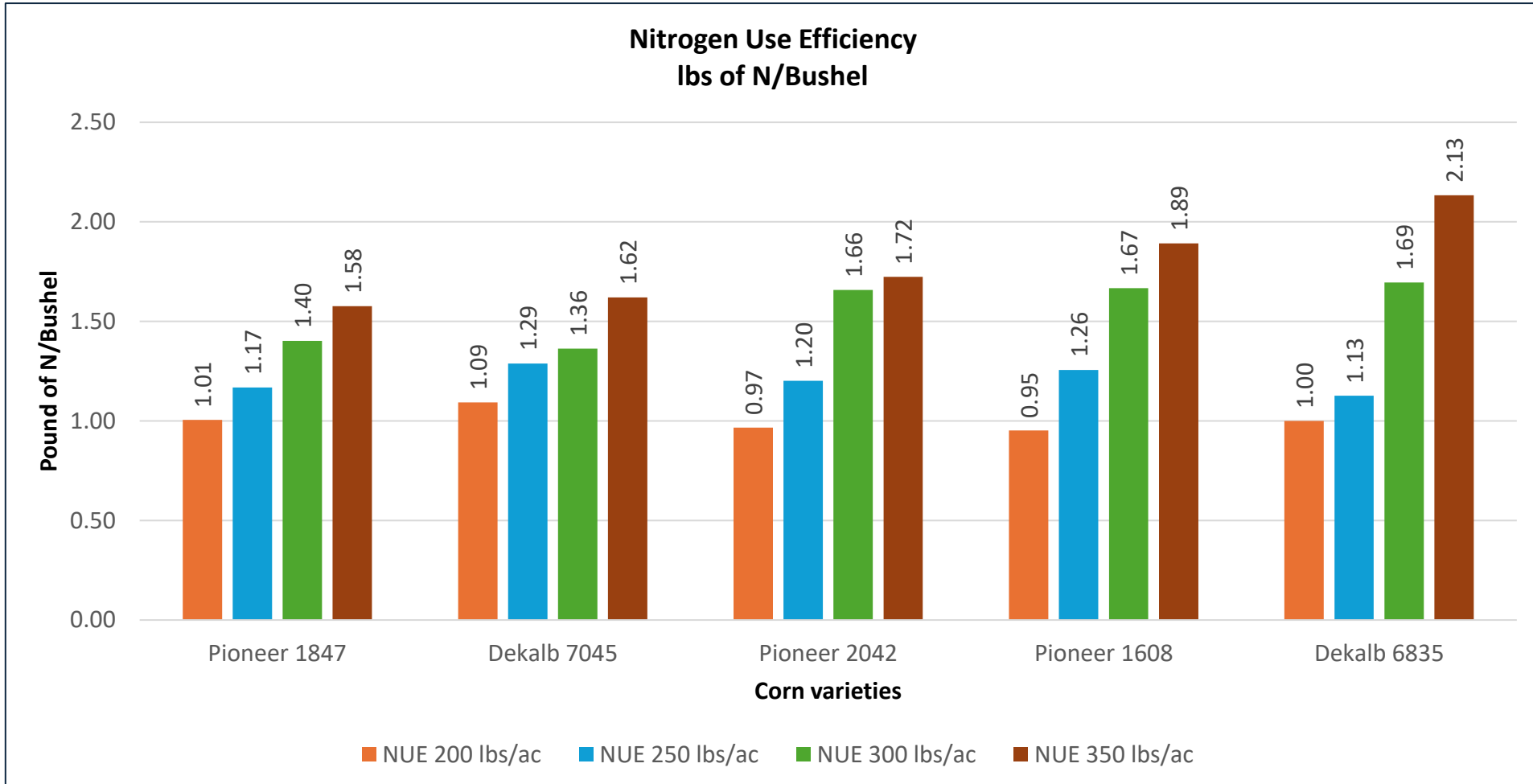




# Nitrogen Rates Corn Trials – Number of Kernel Rows per Corn Ear



# Nitrogen Rates Corn Trials - NUE



# Any Questions?

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