

# Profitable High Yielding Cotton: Wishful Thinking?



Dr. Hunter Frame

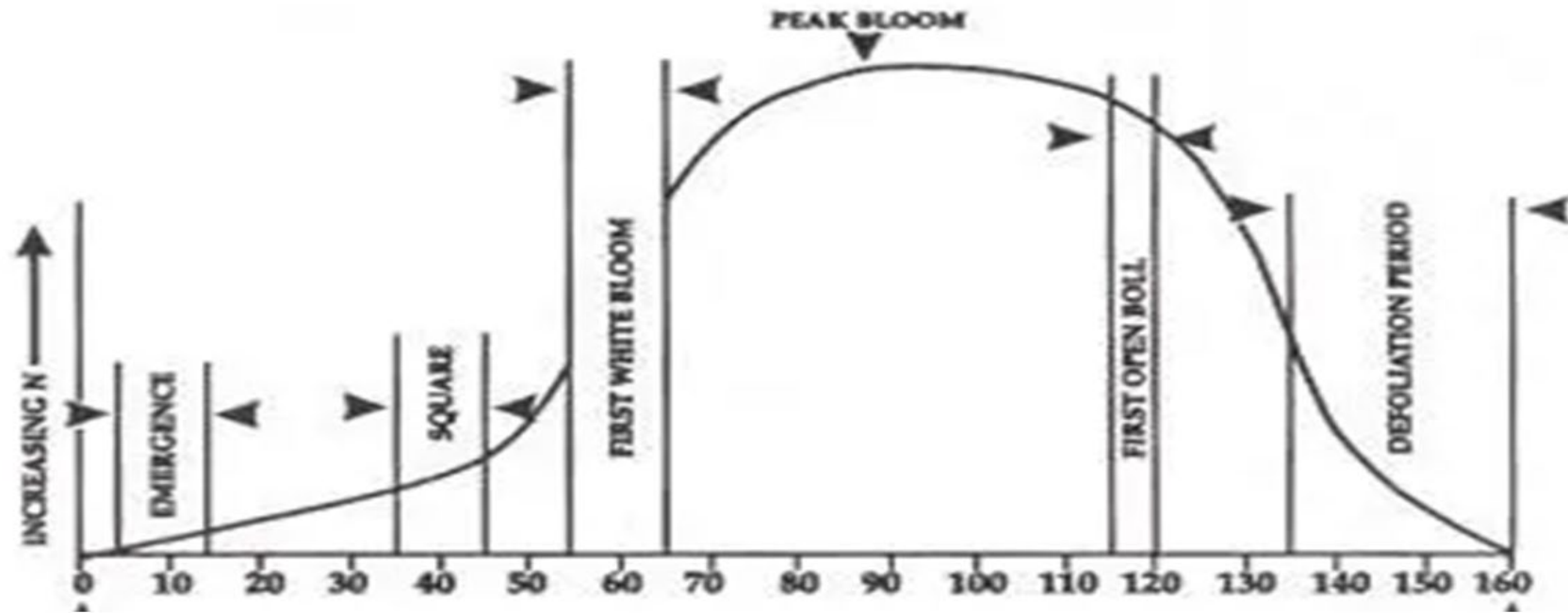
Field Crops Agronomist/Associate Professor

Tidewater AREC, Virginia Tech

2/18/25

# Components of a High Yielding Cotton System

- Yield Building Components
  - Components of your production practices that increase yield levels
    1. Genetics (Variety selection is the most important decision you will make)
    2. Nutrient Management (Higher yielding crops will require more intensive nutrient management)
    3. Environmental Conditions (Need water and sunlight for cotton to yield)
- Yield Protection
  - Components of the production system that protect from the loss of yield (Practicing Best Integrated Pest Management Practices)
    1. Insect Management (My opinion is the most important of the yield protection components)
    2. Weed Management (If dealing with herbicide resistance this could be #1)
    3. Disease/Nematode Management
    4. Plant Growth Regulator Management
    5. Defoliation

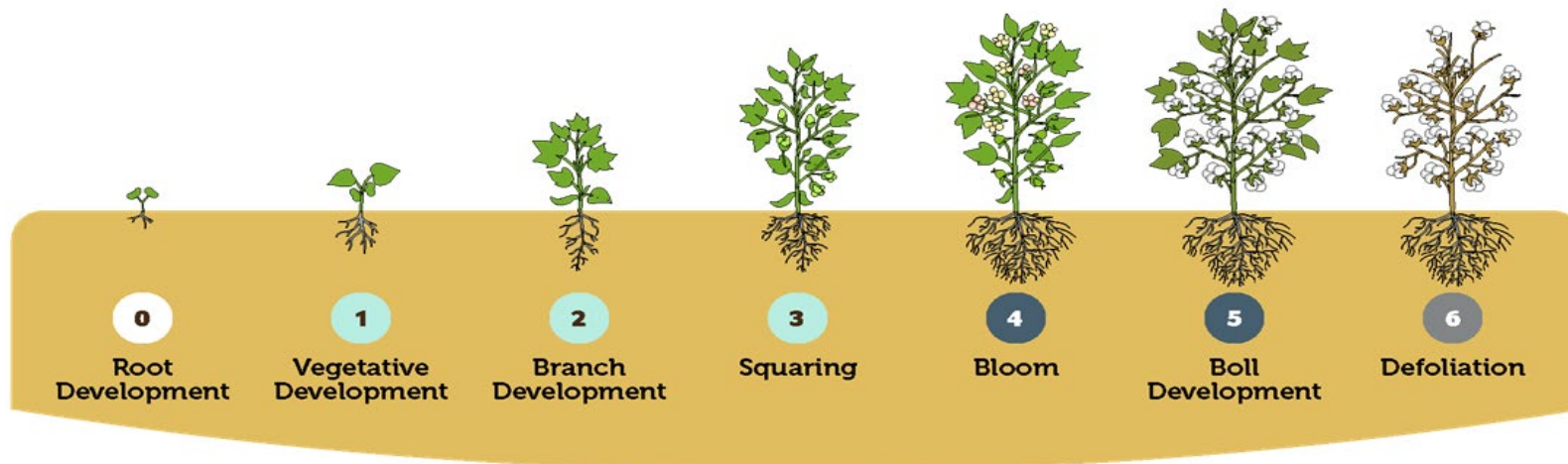


Germination & Emergence

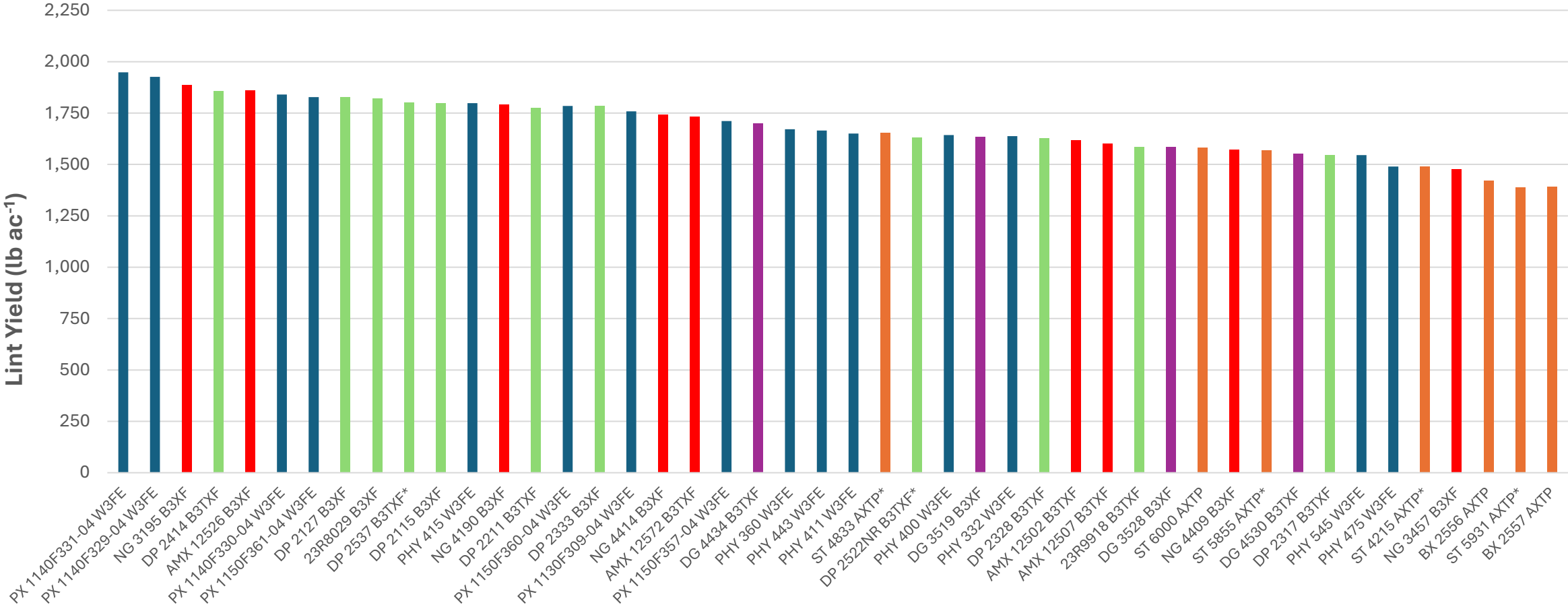
Vegetative Growth

Reproductive Growth

Defoliation



# 2024 Combined OVT Yield Data



# 2024 Combined On-Farm Variety Results

| Company              | Variety       | Average Across Locations) |                  |      |
|----------------------|---------------|---------------------------|------------------|------|
|                      |               | Lint Yield (lb/ac)        | Lint Percent (%) | Rank |
| Bayer CropScience    | DP 2115 B3XF  | 1,430                     | 47.1             | 3.0  |
| Bayer CropScience    | DP2328 B3TXF  | 1,312                     | 47.0             | 7.2  |
| Bayer CropScience    | DP 2317 B3TXF | 1,259                     | 43.8             | 10.0 |
| Bayer CropScience    | DP 2333 B3XF  | 1,407                     | 47.0             | 4.0  |
| BASF Corp.           | ST 6000 AXTP  | 1,298                     | 49.6             | 8.0  |
| Americot             | NG 3195 B3XF  | 1,445                     | 45.9             | 2.2  |
| Americot             | NG 4414 B3XF  | 1,299                     | 45.4             | 8.0  |
| Corteva Agriscience  | PHY 360 W3FE  | 1,303                     | 45.9             | 8.0  |
| Corteva Agriscience  | PHY 411 W3FE  | 1,328                     | 47.6             | 7.4  |
| Corteva Agriscience  | PHY 415 W3FE  | 1,394                     | 46.6             | 3.8  |
| Nutrien Ag Solutions | DG 3511 B3XF  | 1,213                     | 46.4             | 9.6  |
| Nutrien Ag Solutions | DG 3528 B3XF  | 1,291                     | 45.7             | 6.8  |

# Two and Three-Year Virginia OVT Results

| Variety             | Two-Year Average Relative Yield |
|---------------------|---------------------------------|
| DP 2127 B3XF        | 0.921                           |
| PHY 415 W3FE        | 0.906                           |
| DP 2115 B3XF        | 0.904                           |
| DP 2333 B3XF        | 0.895                           |
| NG 3195 B3XF        | 0.894                           |
| DP 2211 B3TXF       | 0.893                           |
| PHY 400 W3FE        | 0.893                           |
| PHY 360 W3FE        | 0.890                           |
| PHY 411 W3FE        | 0.890                           |
| NG 4190 B3XF        | 0.881                           |
| DG 3519 B3XF        | 0.874                           |
| PHY 332 W3FE        | 0.859                           |
| PHY 443 W3FE        | 0.858                           |
| DP 2328 B3TXF       | 0.843                           |
| DG 3528 B3XF        | 0.836                           |
| <b>Average</b>      | <b>0.882</b>                    |
| Tukey's HSD (P=0.1) | 0.105                           |

| Variety             | Three-Year Average Relative Yield |
|---------------------|-----------------------------------|
| PHY 400 W3FE        | 0.899                             |
| DP 2115 B3XF        | 0.897                             |
| NG 3195 B3XF        | 0.896                             |
| PHY 411 W3FE        | 0.889                             |
| DP 2127 B3XF        | 0.888                             |
| PHY 415 W3FE        | 0.885                             |
| PHY 360 W3FE        | 0.872                             |
| PHY 332 W3FE        | 0.864                             |
| DG 3519 B3XF        | 0.863                             |
| PHY 443 W3FE        | 0.860                             |
| <b>Average</b>      | <b>0.881</b>                      |
| Tukey's HSD (P=0.1) | 0.073                             |

# 2025 Cotton Variety Selection

## Highest Yielding and Stable across Environments

- DP 2115 B3XF
- NG 3195 B3XF
- PHY 415 W3FE
- DP 2333 B3XF
- DP 2038 B3XF

## Mid to High Yielding Newer Varieties (2-3 years of data)

- PHY 400 W3FE
- DP 2127 B3XF
- PHY 411 W3FE

## Varieties with limited supply may be available...

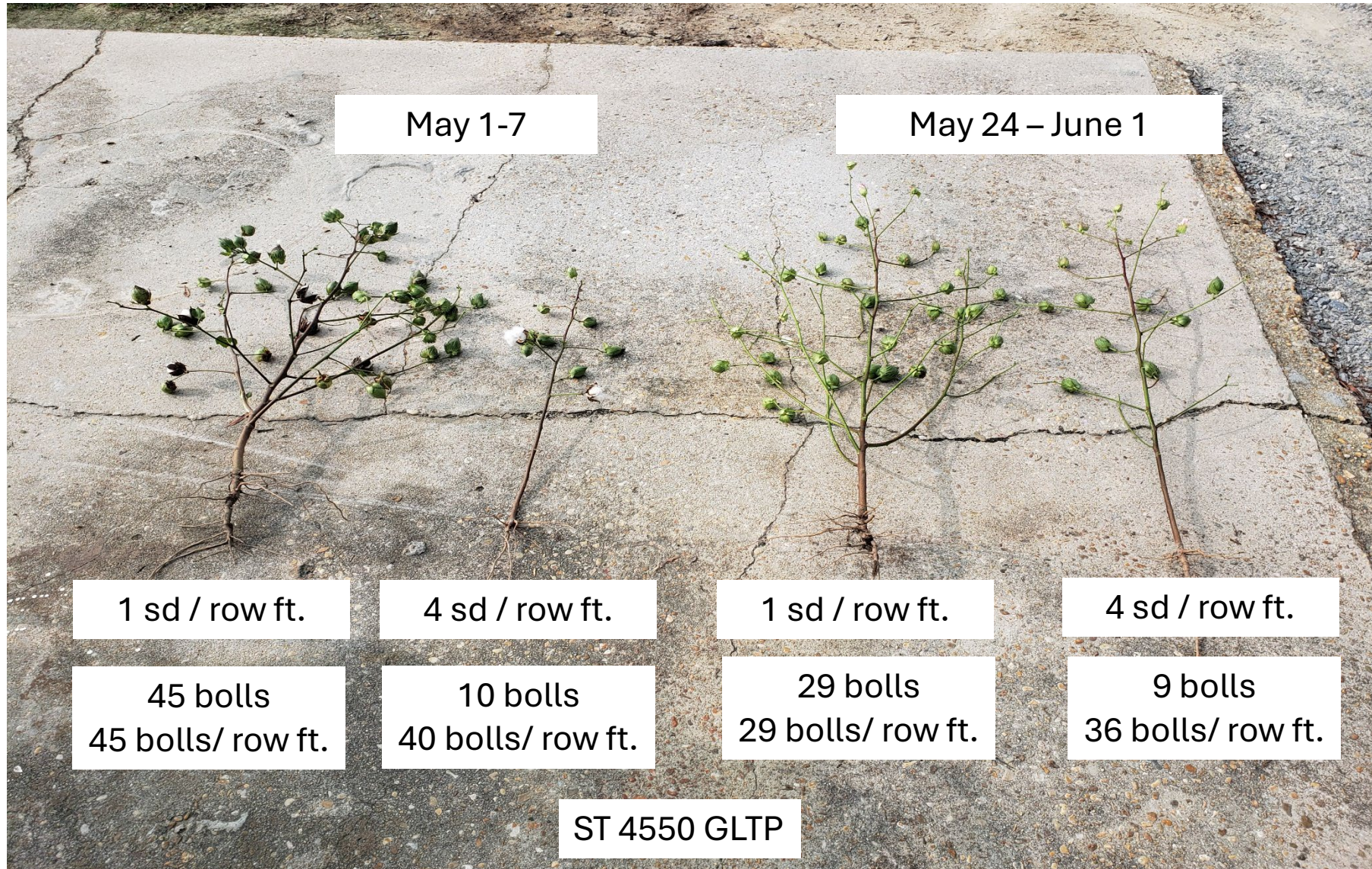
- ST 5091 B3XF
- ST 4595 B3XF

# Revenue Loss from Variety Selection

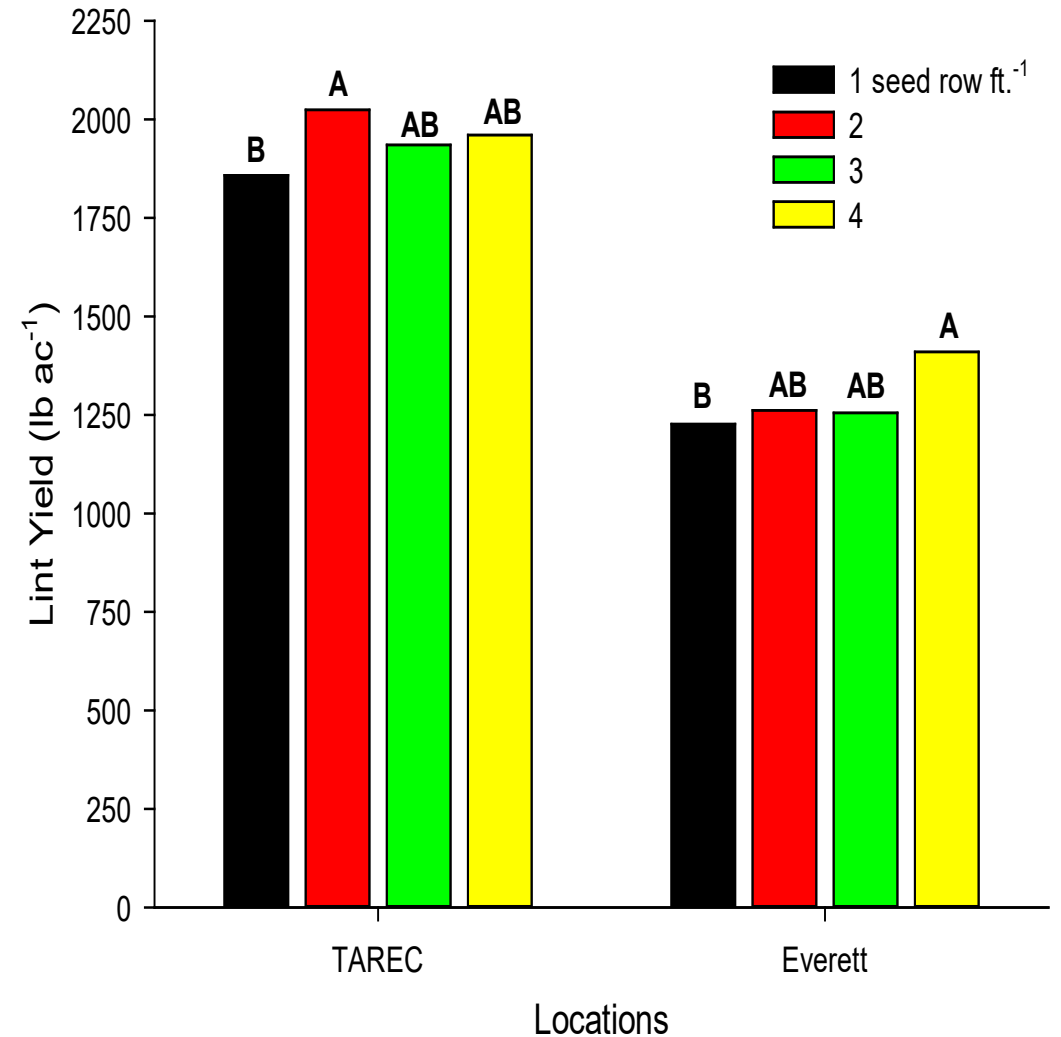
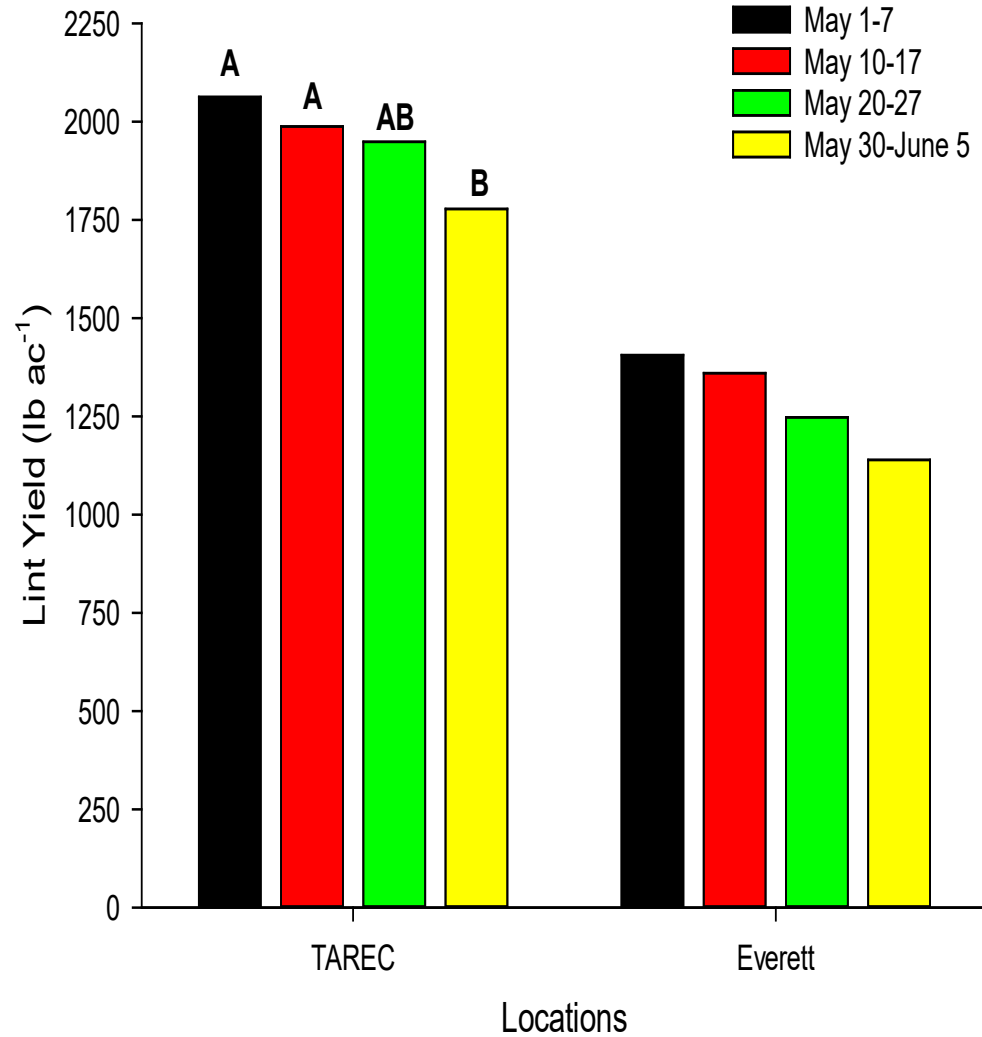
|   |   |
|---|---|
| Top 3 yielding varieties  | Avg. yield in 2024 OVT = 1,920 lb lint per acre   |
| Top 3 recommended varieties                                     | Avg. yield in 2024 OVT = 1,828 lb lint per acre   |
| Median 3 varieties  | Avg. yield in 2024 OVT = 1,662 lb lint per acre   |
| Bottom 3 commercial varieties                                   | Avg. yield in 2024 OVT = 1,452 lb lint per acre   |
| Revenue loss vs top 3 recommended varieties @\$0.69 per lb lint | Selecting varieties in middle of pack = <b><u>\$175/acre</u></b><br>Selecting varieties at bottom = <b><u>\$318/acre</u></b><br><b><u>Economic Loss to VA Cotton Production = \$12.6 – 22.9 million over 72,000 acres</u></b> |



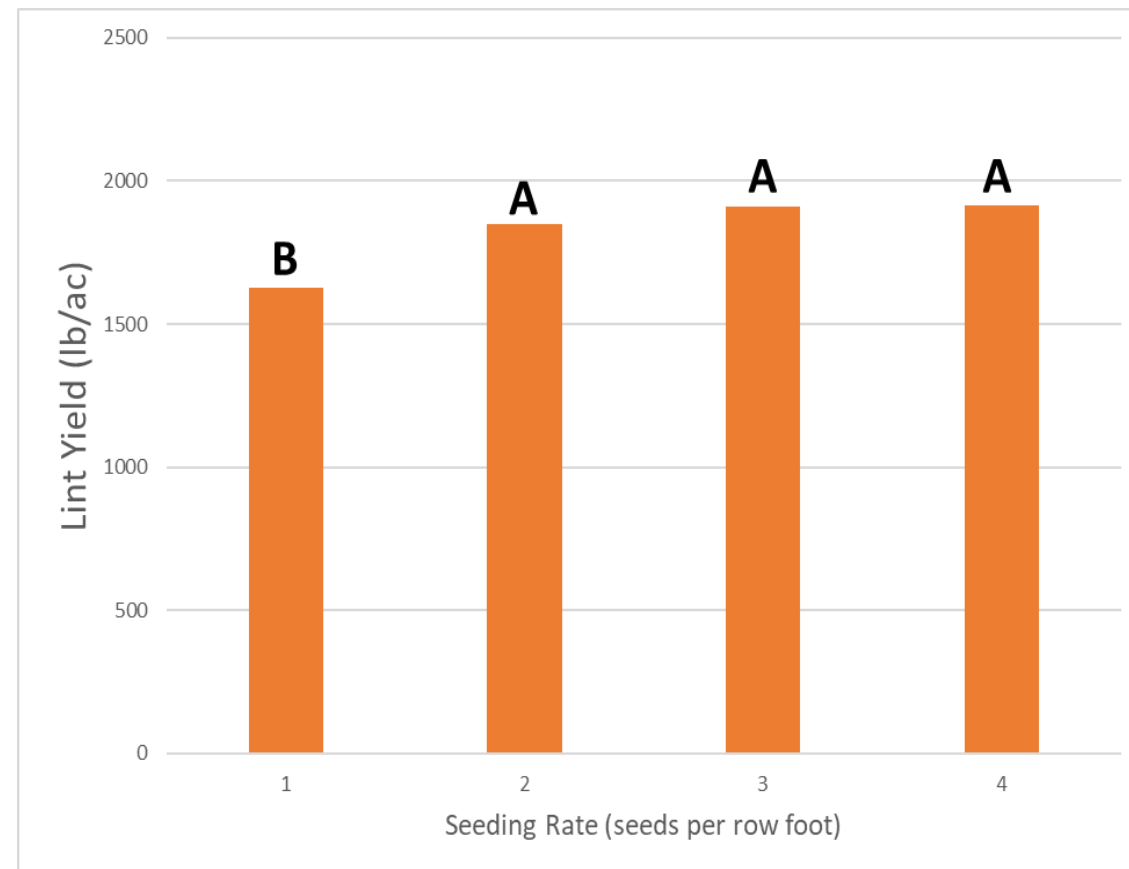
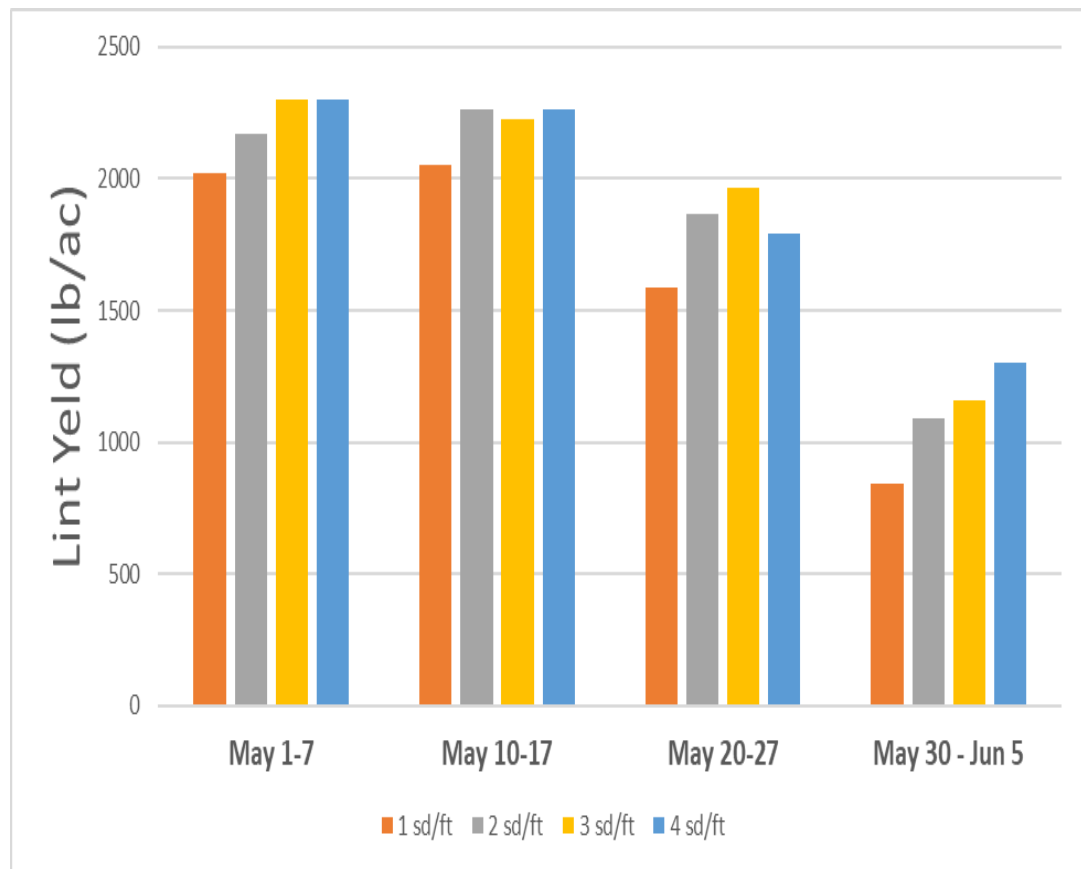
# Planting Date and Seeding Rate on Plant Architecture



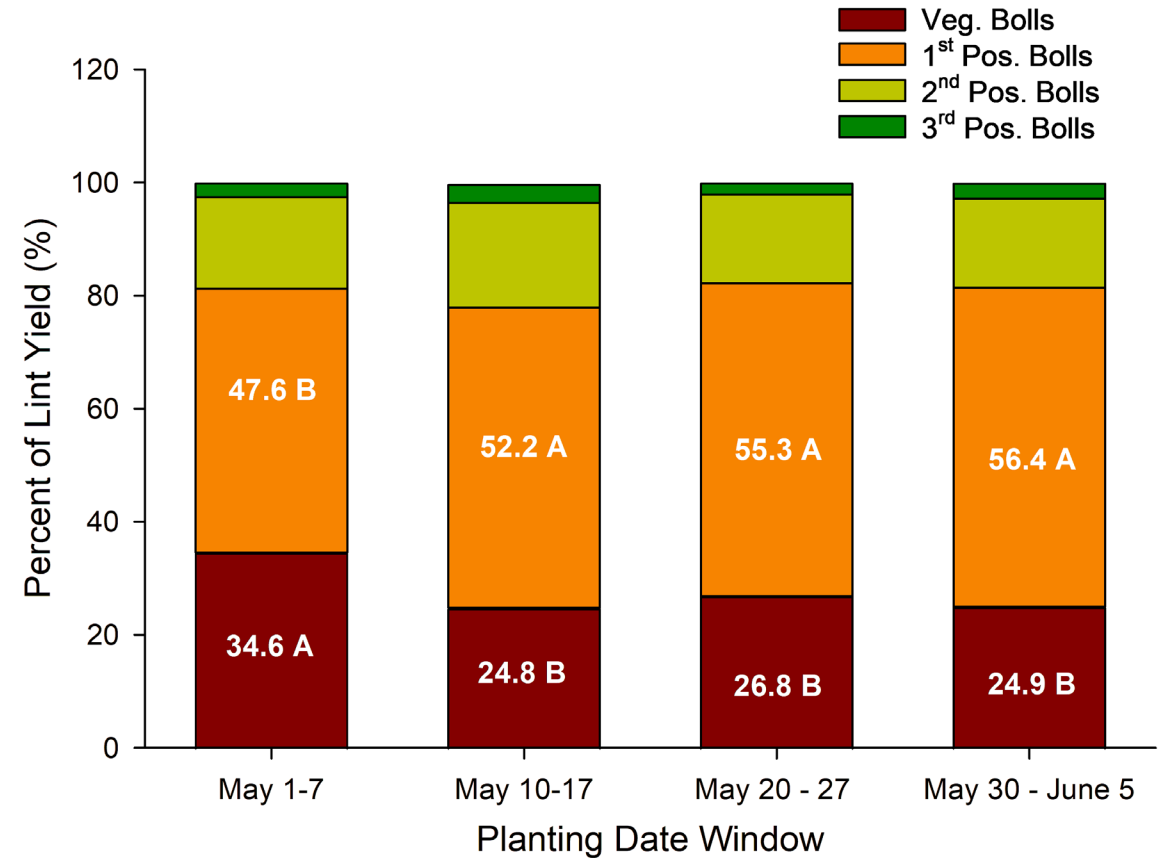
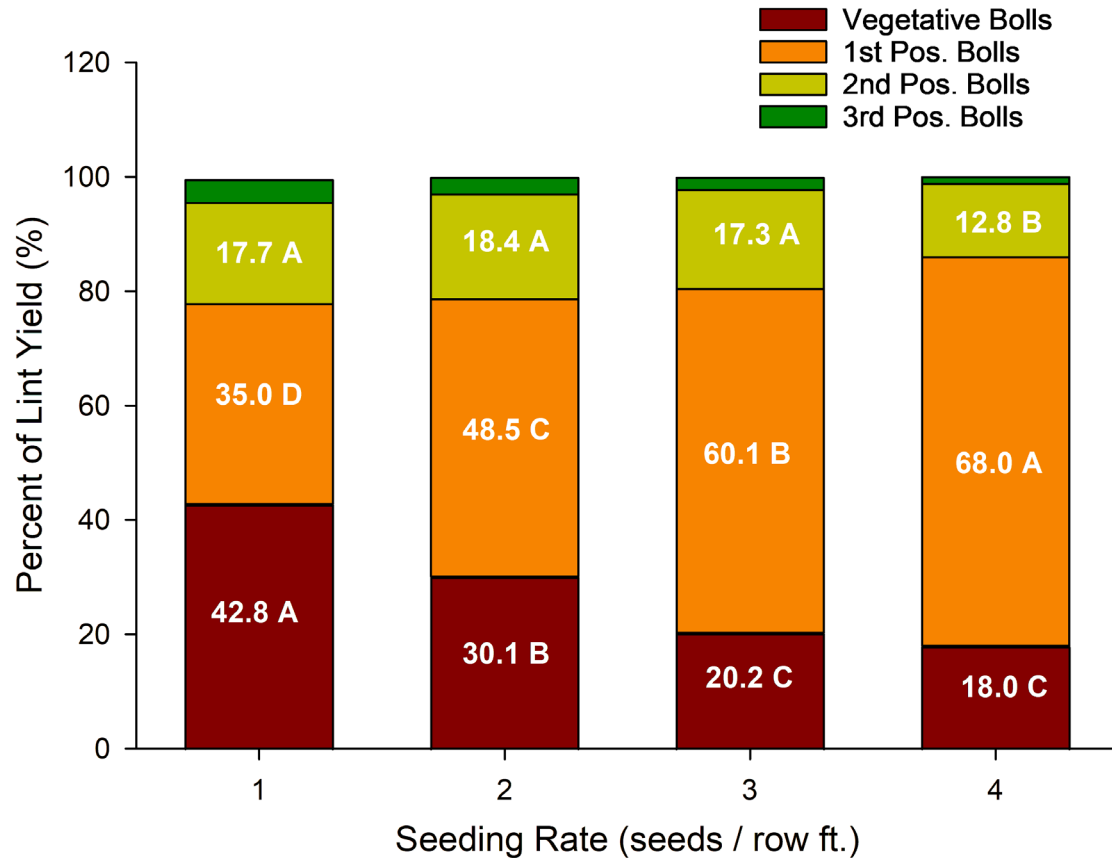
# Impact of Planting Date, Seeding Rate and Location on Lint Yield in 2021



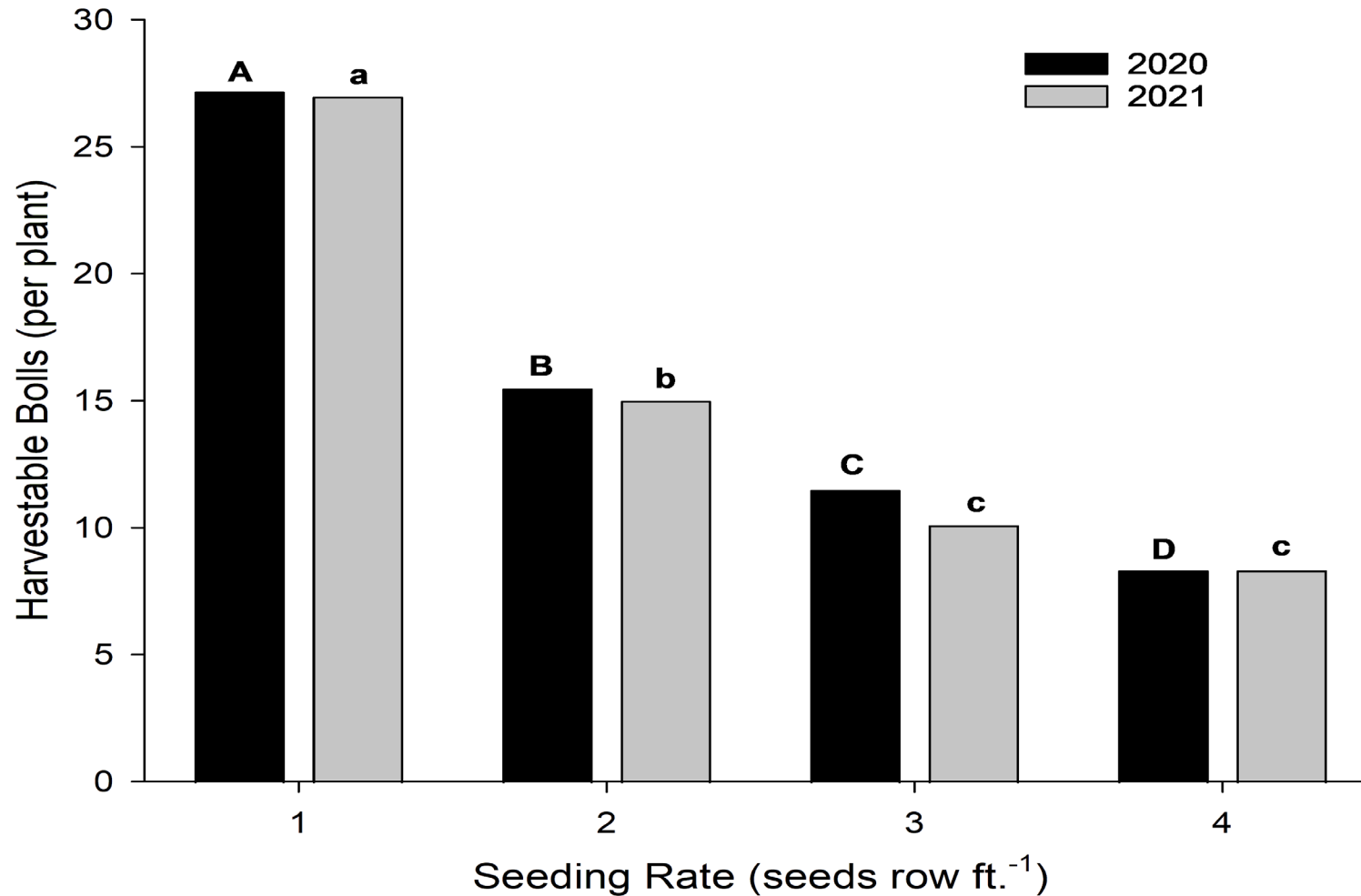
# Planting Date and Seeding Rate Impacts on cotton lint yield in 2022



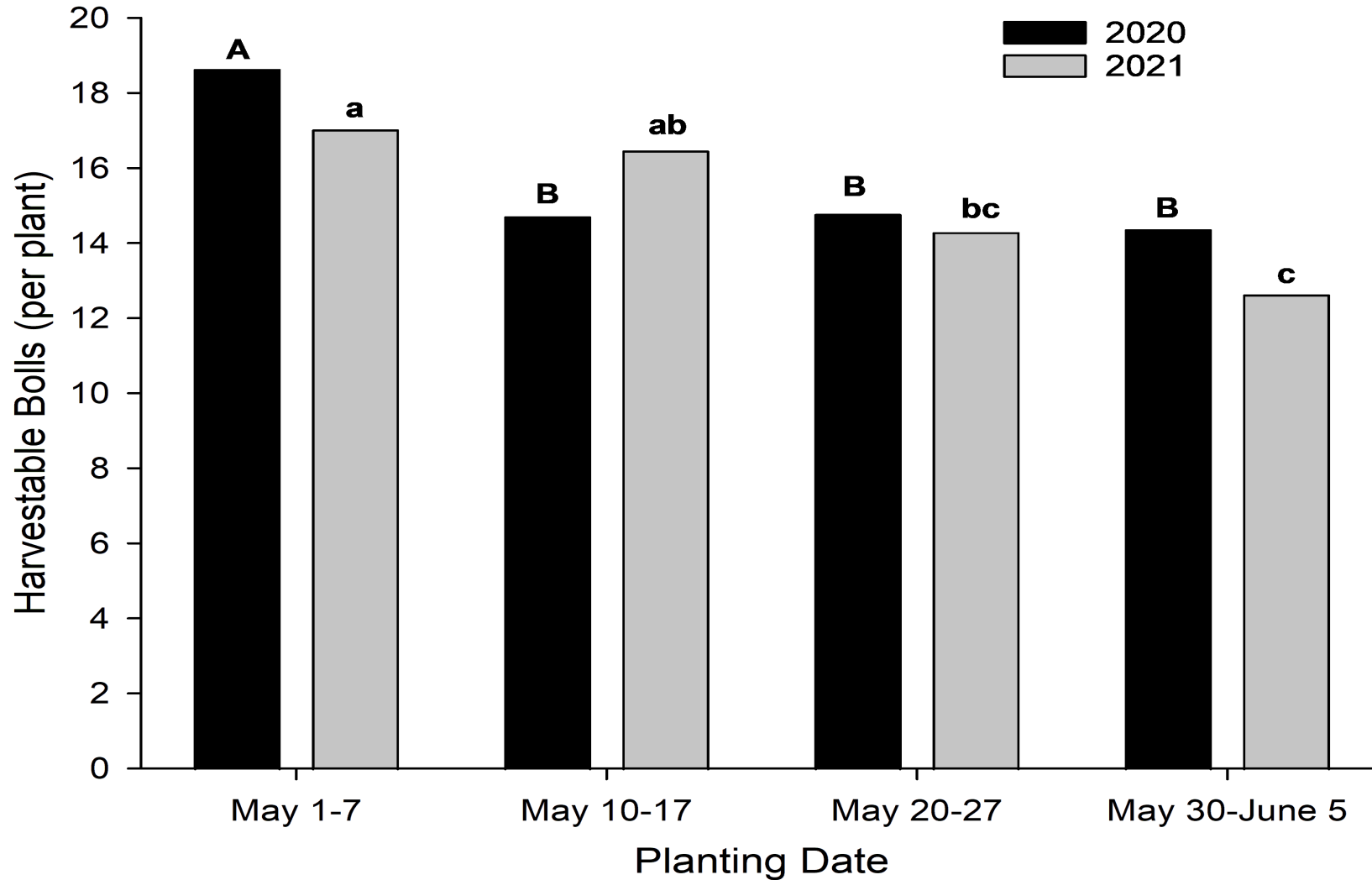
# Seeding Rate and Planting Date Impact of Percent Yield for Fruiting Branch Positions (2020)



# Harvestable Bolls per Plant Affected by Seeding Rate (2020 – 2021)



# Harvestable Bolls per Plant Affected by Planting Date (2020 – 2021)



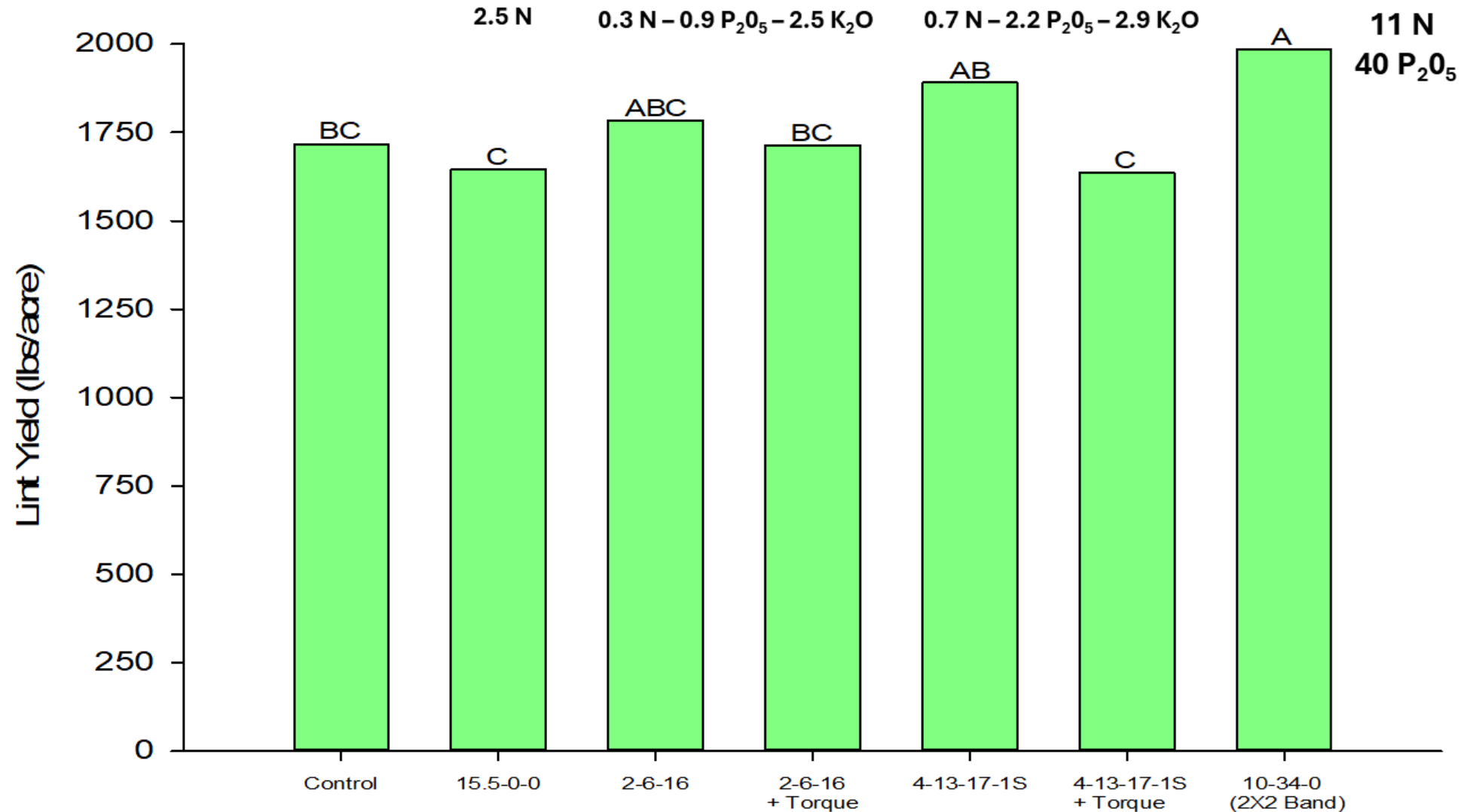


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## Soil Fertility At Planting

- Nitrogen
  - 20 – 35 lb N per acre applied either in pre-plant broadcast or 2X2 band at planting
- Phosphorus
  - Based on soil test recommendations
    - Can be broadcast or in starter
- Potassium
  - Pre-plant broadcast based on soil test recommendations as MOP (0-0-60)
  - Can split applications between planting and 5-6 leaf stage
- Sulfur
  - 5-10 lbs S applied in pre-plant broadcast or in starter band with N
- What about in-furrow fertilizers/pop-ups...? What's the ROI?

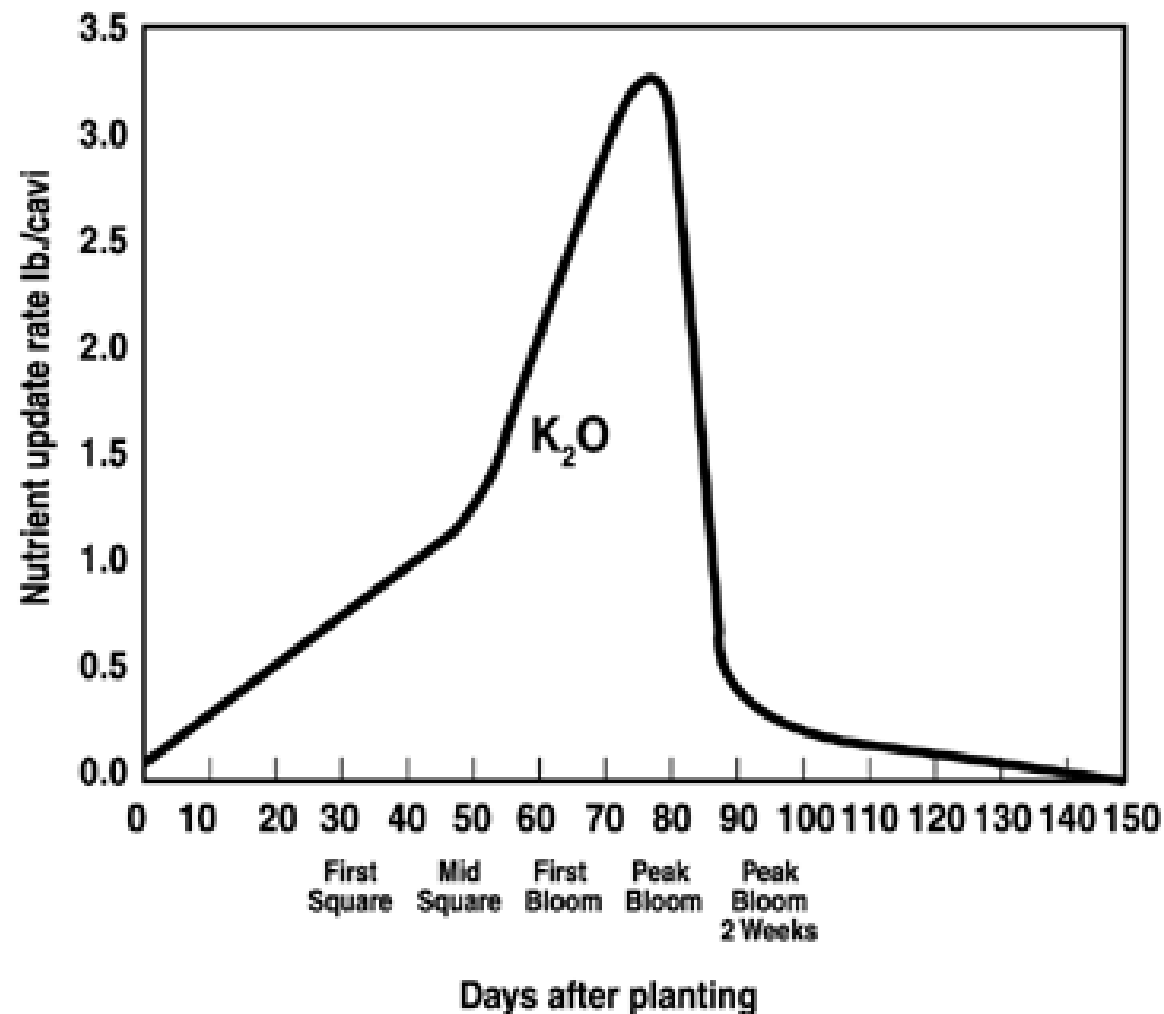
# Cotton Response to Pop-up and Starter Fertilizer





# Potassium Uptake in Cotton: Relying Solely on Foliar Feeding is Gambling!

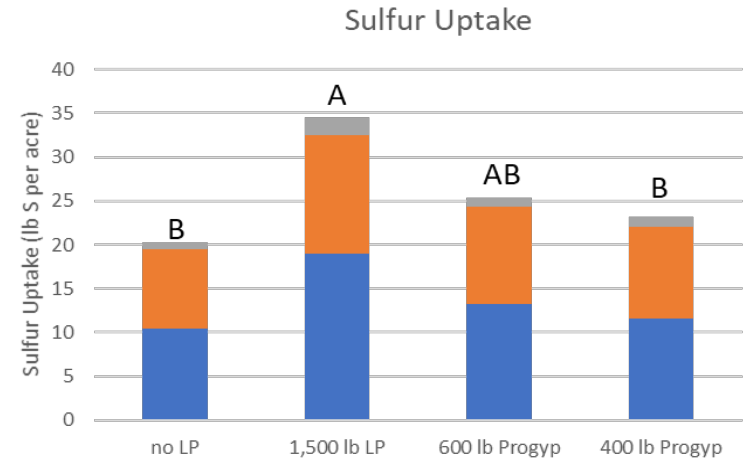
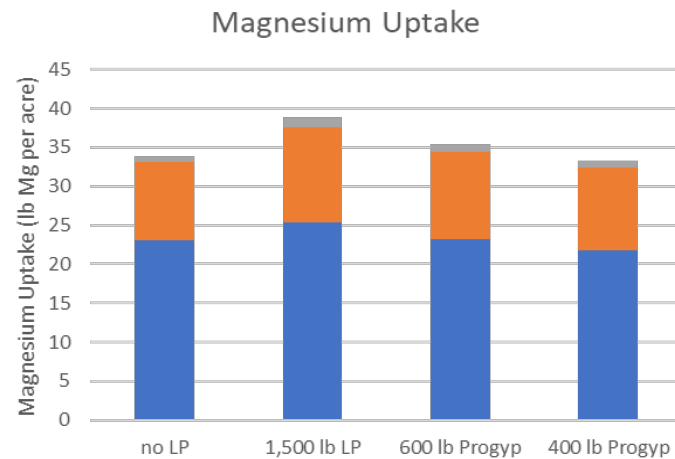
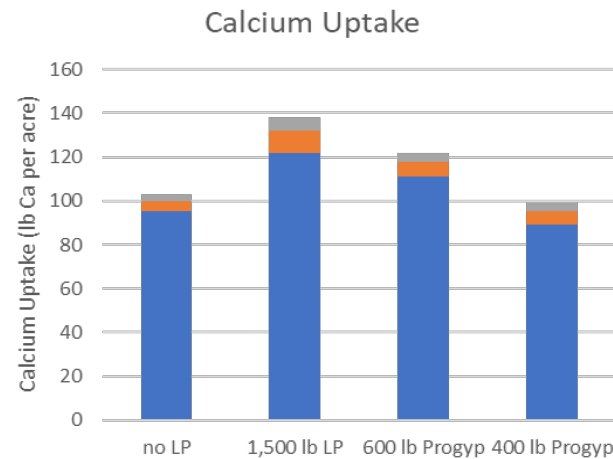
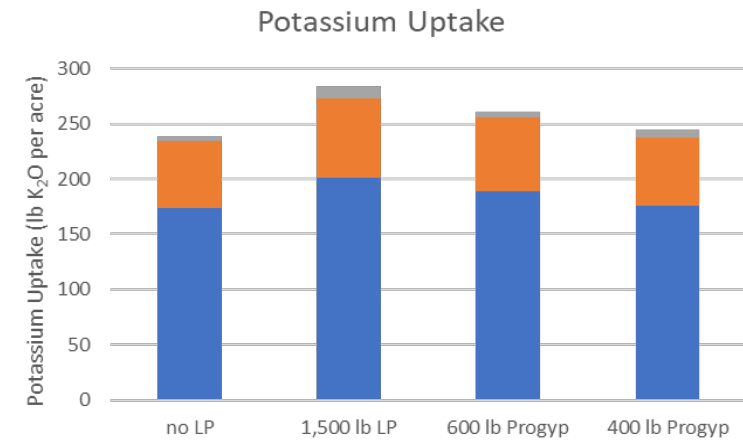
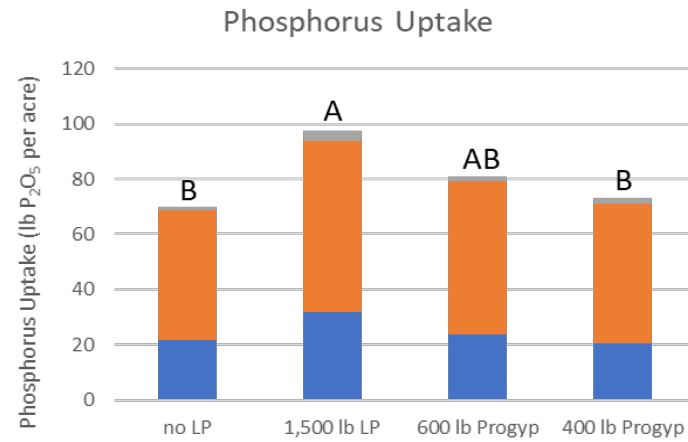
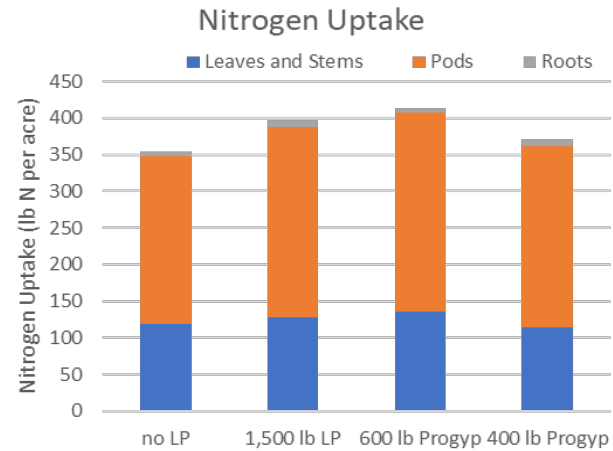
- If we apply 10 lbs/acre 13-0-44 (potassium nitrate) as a foliar spray in 15 gal mix/acre
- 4.4 lb.  $K_2O$  / acre
- The max uptake rate is 3.2 lb.  $K_2O$  /acre
- You have applied 1.5 days of K demand... assuming 100% efficiency of your application



# Let's look at this another way...

- Say we want to use 0-0-25-17S to foliar feed...
  - 1 Qt/acre = 0.76 lbs  $K_2O$ /acre
- Soil test K = 180 lbs  $K_2O$ /acre (Medium)
- Assume that 75% of K uptake is supplied by soil
  - 200 lbs  $K_2O$  uptake for 1,500 lbs lint per acre
- Need and additional 50 lbs  $K_2O$ /acre
- 50 lbs  $K_2O$ /acre / 0.76 lbs  $K_2O$ /acre applied per trip
- 66 trips to supply the needed K
- If you foliar feed twice a week.... That's 7 months of applications
- **THIS IS ASSUMING ALMOST COMPLETE DEPLETION OF SOIL TEST K AND 100% EFFICIENCY IN FOLIAR FEEDING OF K**

# Peanut N and S Uptake in trials with 6,000 lb yields



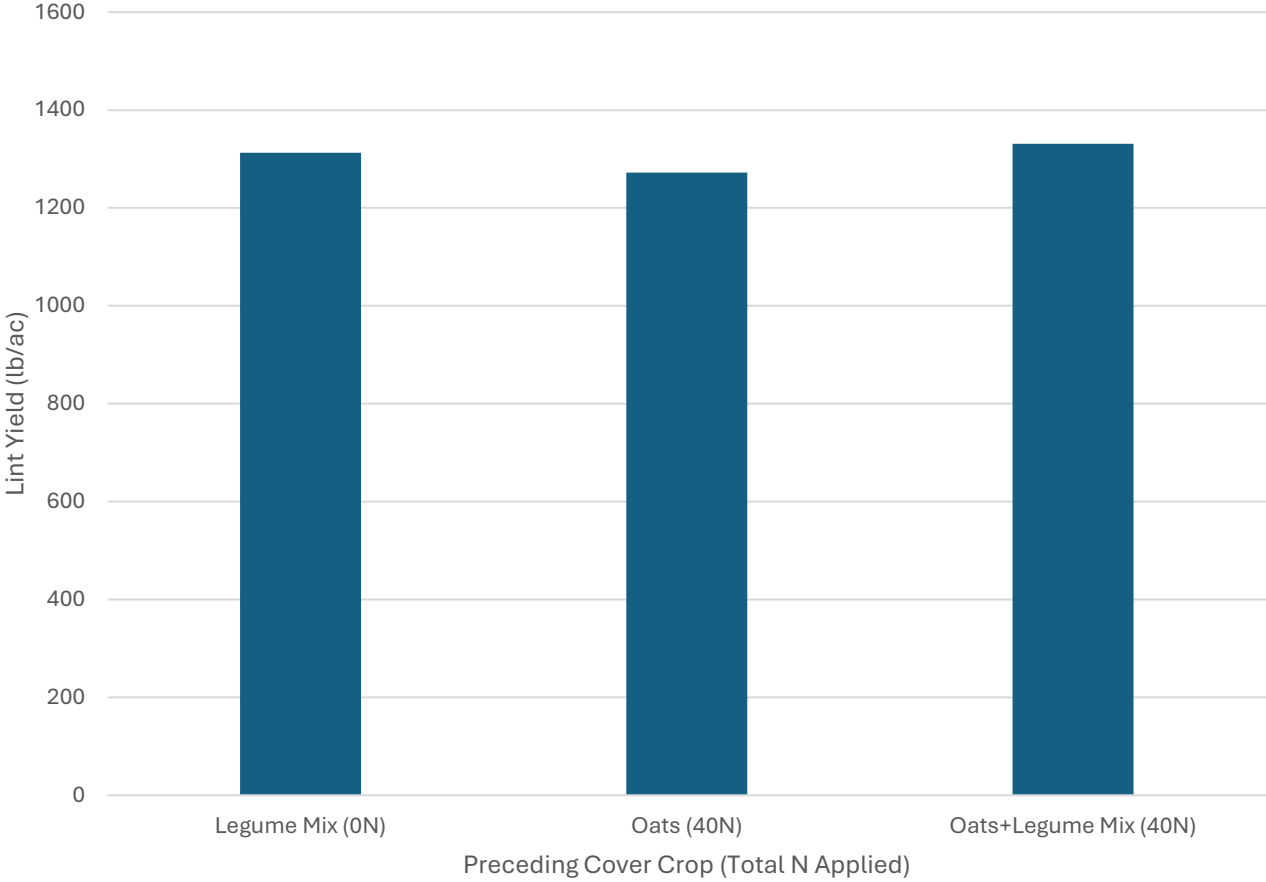
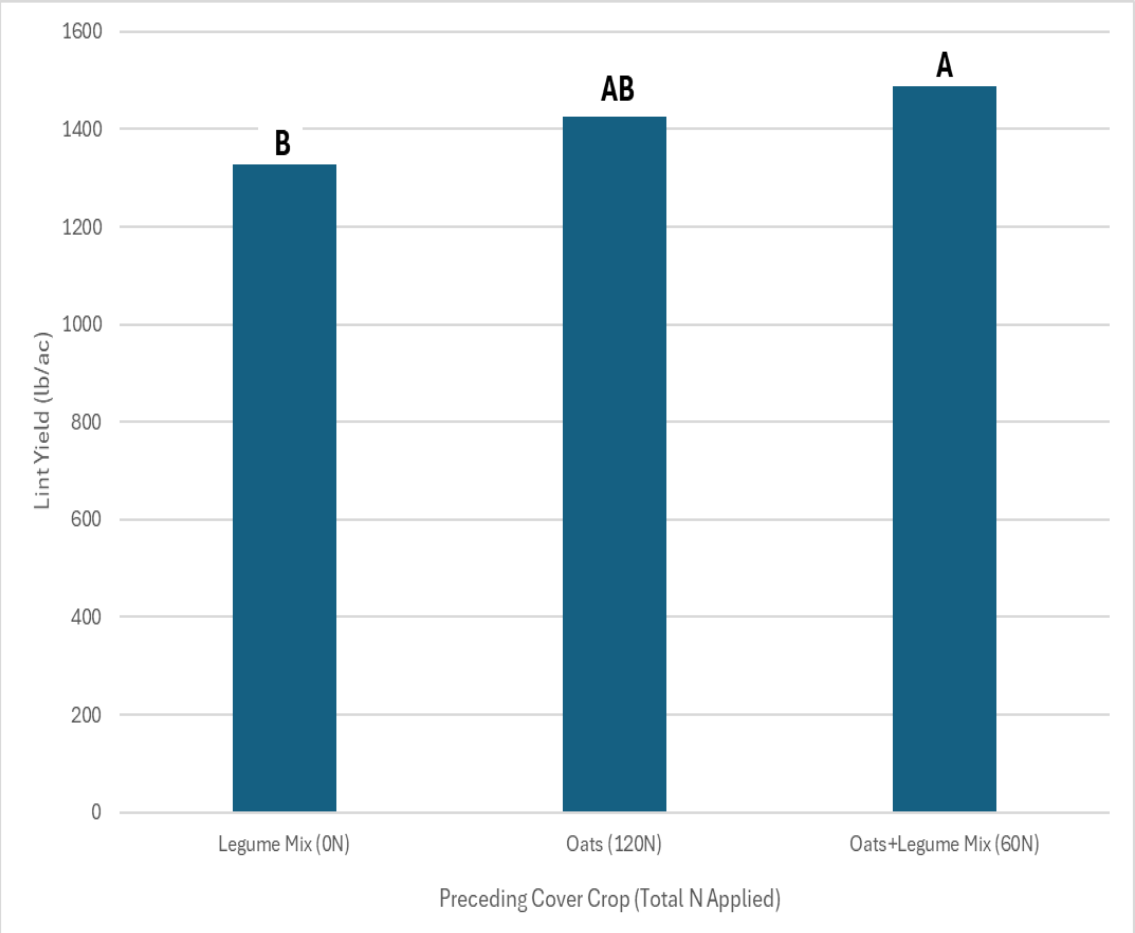
# On-Farm Cover Crops/Green Manure Study (Isle of Wight County, Planted October 2019)

| Cover Crop        | Total Nitrogen Application Rate |  | Cover Crop Biomass and Nutrient Uptake |       |                               |                  |      |        | Cotton Biomass and Nutrient Uptake |     |                               |                  |    |
|-------------------|---------------------------------|--|--|-------|-------------------------------|------------------|------|--------|------------------------------------|-----|-------------------------------|------------------|----|
|                   | lb/ac                           |  | Dry Biomass                            | N     | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O | S    | C:N    | Dry Biomass                        | N   | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O | S  |
|                   |                                 |  | ----- lb/ac -----                      |       |                               |                  |      |        | ----- lb/ac -----                  |     |                               |                  |    |
| <b>Fallow</b>     | 120                             |  | 574 d*                                 | 6 c   | 4 c                           | 15 c             | 1 c  | 22.0 a | 9,451                              | 174 | 68                            | 201 bc           | 21 |
| <b>Legume Mix</b> | 60                              |  | 5,518 a                                | 195 a | 38 a                          | 199 a            | 11 a | 10.9 b | 10,142                             | 188 | 62                            | 234 a            | 21 |
| <b>Rye + LM</b>   | 90                              |  | 4,976 b                                | 149 b | 37 a                          | 191 a            | 9 a  | 13.4 b | 10,027                             | 189 | 67                            | 233 ab           | 23 |
| <b>Rye</b>        | 120                             |  | 1,385 c                                | 29 c  | 11 b                          | 38 b             | 2 b  | 20.9 a | 8,836                              | 167 | 63                            | 195 c            | 21 |

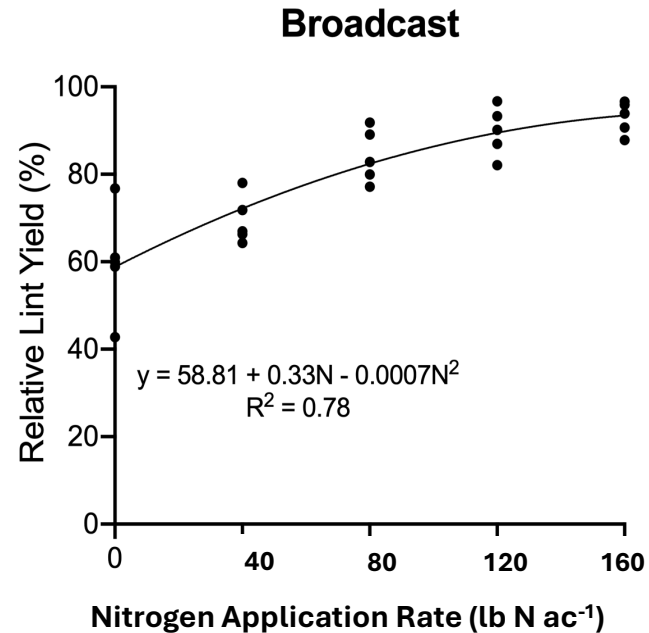
\*Means with the same letter are not significantly different at alpha = 0.1 within columns.

†Legume Mix (LM) = 50% crimson clover and 50% hairy vetch seeding mix

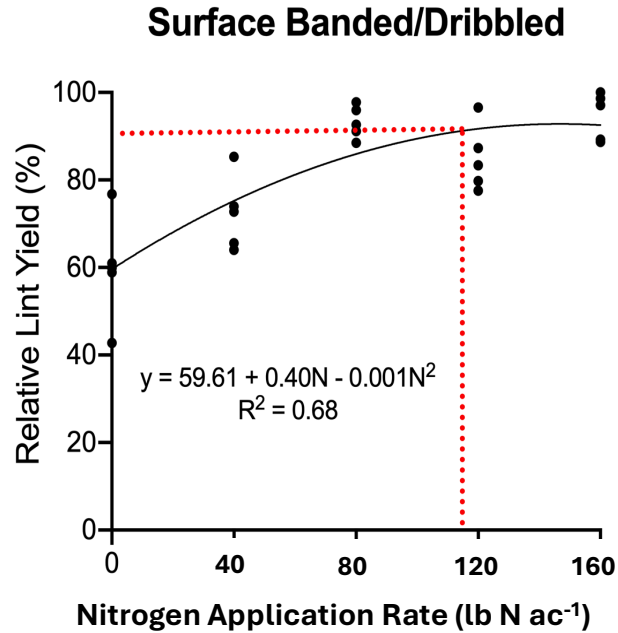
# 2024 On-Farm Green Manure Cover Crop Study



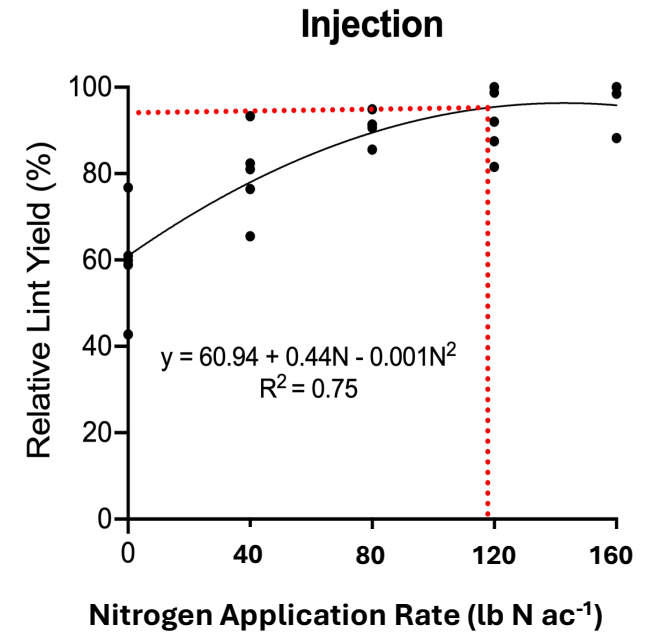
# Cotton Yield Response to Placement and Rate



**Optimal N Rate: >160 lb N ac<sup>-1</sup>**  
Max Relative Yield: 94%  
≈1,425 lb ac<sup>-1</sup>



**Optimal N Rate: 114 lb N ac<sup>-1</sup>**  
Max Relative Yield: 90%  
≈1,380 lb ac<sup>-1</sup>



**Optimal N Rate: 119 lb N ac<sup>-1</sup>**  
Max Relative Yield: 95%  
≈1,434 lb ac<sup>-1</sup>

# PGR Management Strategies

## Low rate multiple applications

2-6 fl. oz. per acre of mepiquat chloride applied in 4-8 applications during the growing season

## Modified Early Bloom (MEB) (Current Extension Rec's) (Aggressive)

1<sup>st</sup> application @ matchhead square, usually 8-16 fl. oz. per acre

2<sup>nd</sup> application @ 1<sup>st</sup> week of bloom, 8-32 fl. oz. per acre

\*\*\*Application rates depend on internode length of 4<sup>th</sup> node on main stem, plant height and if PGR was applied at MHS\*\*\*

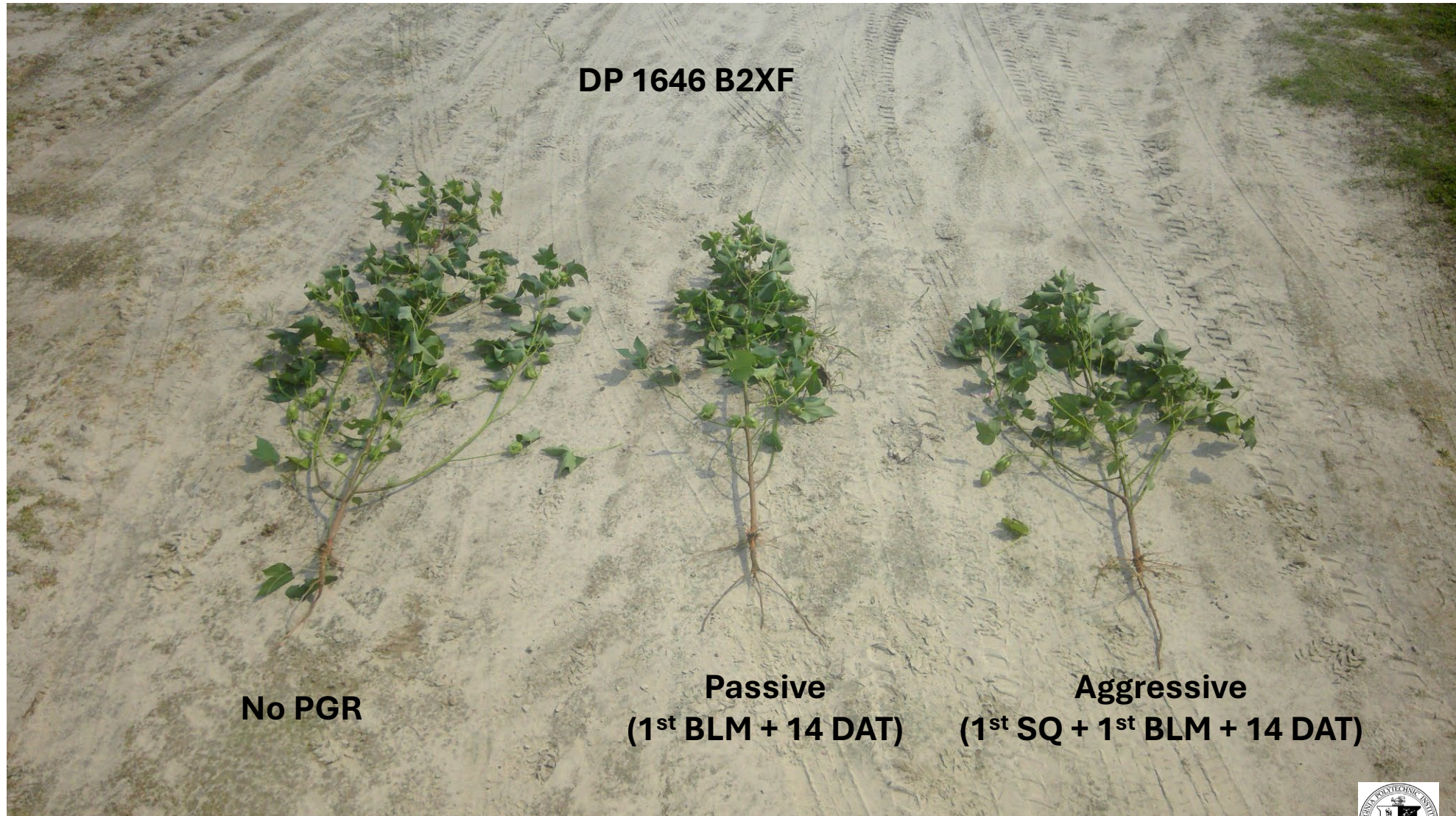
3<sup>rd</sup> application @ 10-14 days after 2<sup>nd</sup> application 8-32 fl. oz. per acre

## Passive PGR Management (Early Bloom)

1<sup>st</sup> application @ 1<sup>st</sup> week of bloom, 16-32 fl. oz. per acre

2<sup>nd</sup> application @ 10-14 days after 2<sup>nd</sup> application 16-32 fl. oz. per acre

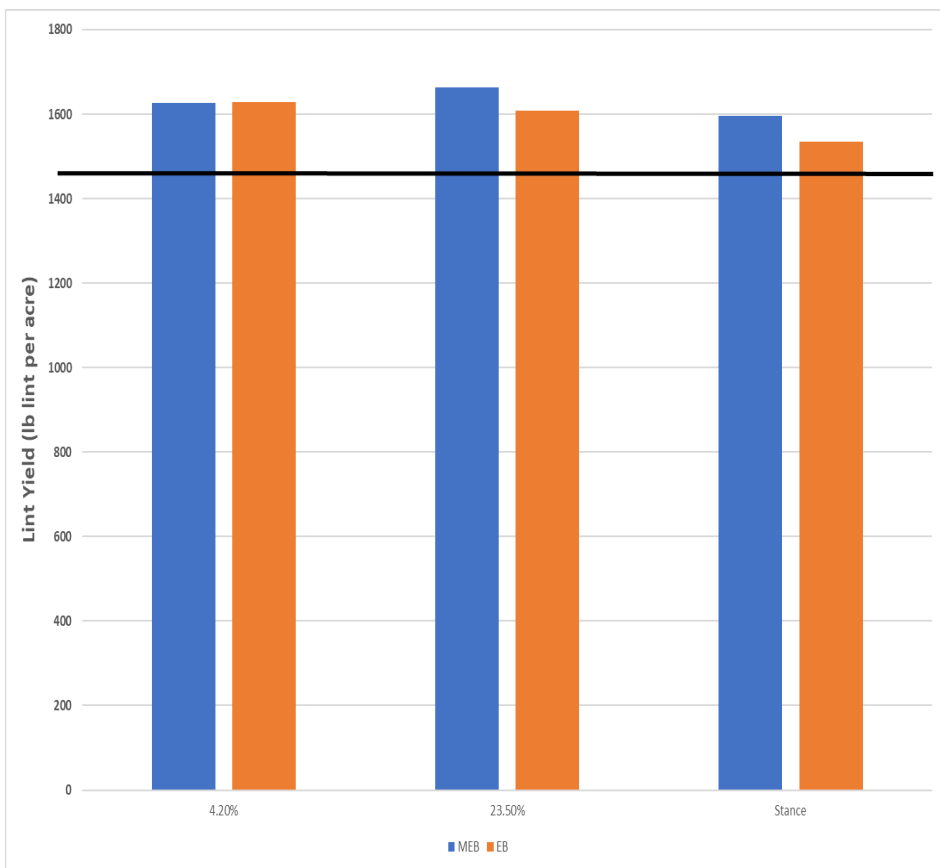
# Plant Growth Regulator Management





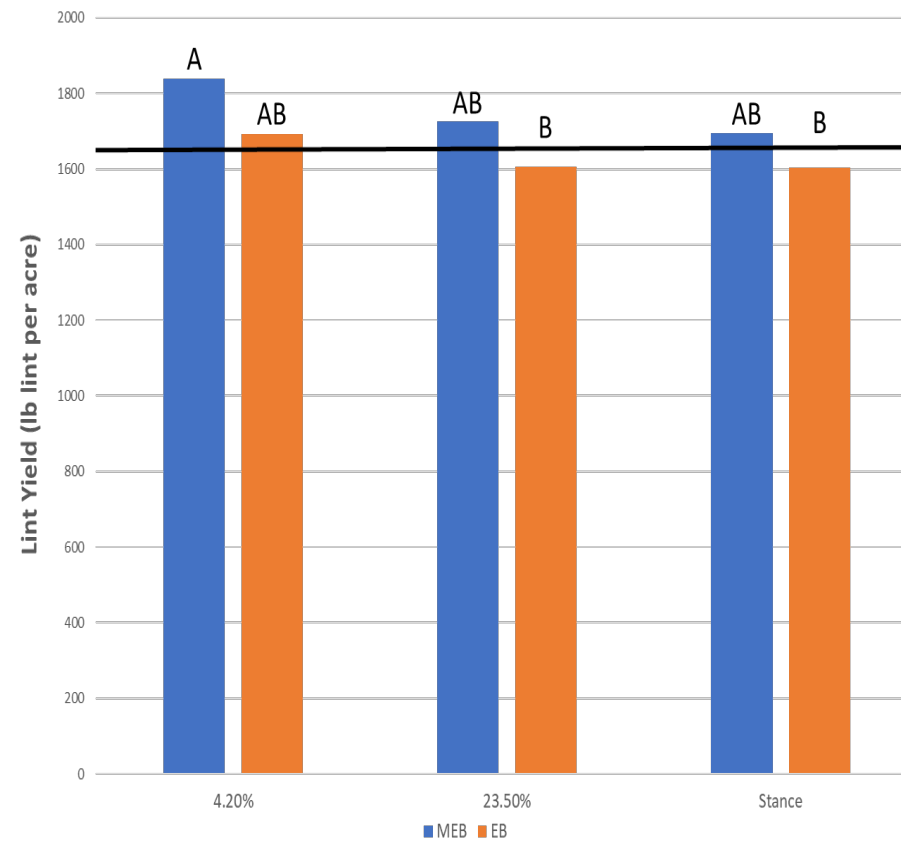
# PGR Formulation and Management on Cotton Lint Yield in 2023

## DP 2038 B3XF



Trial planted in early May 2023

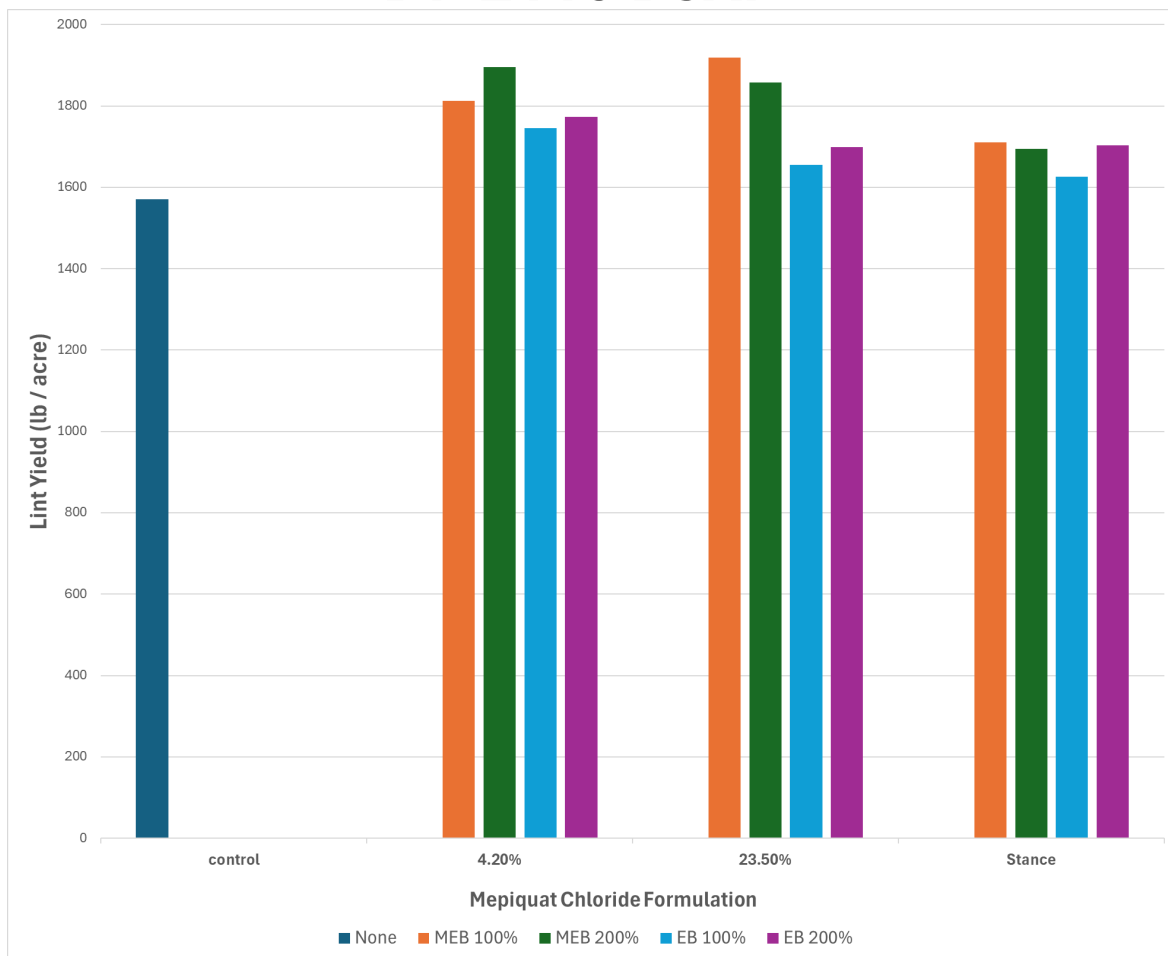
## DP 2115 B3XF



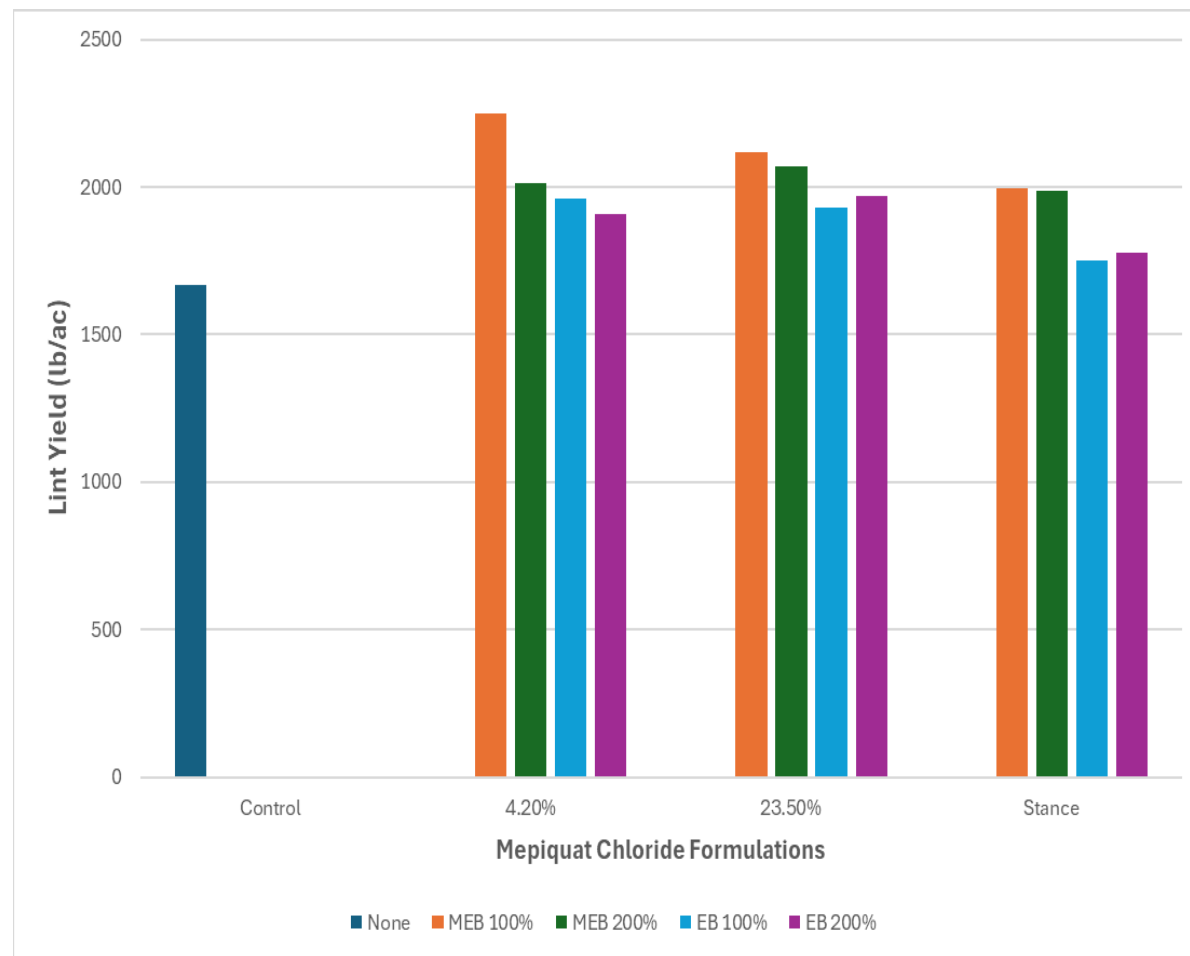
Trial planted in early June 2023

# PGR Formulation and Management on Cotton Lint Yield in 2024

## DP 2115 B3XF



## DP 2038 B3XF

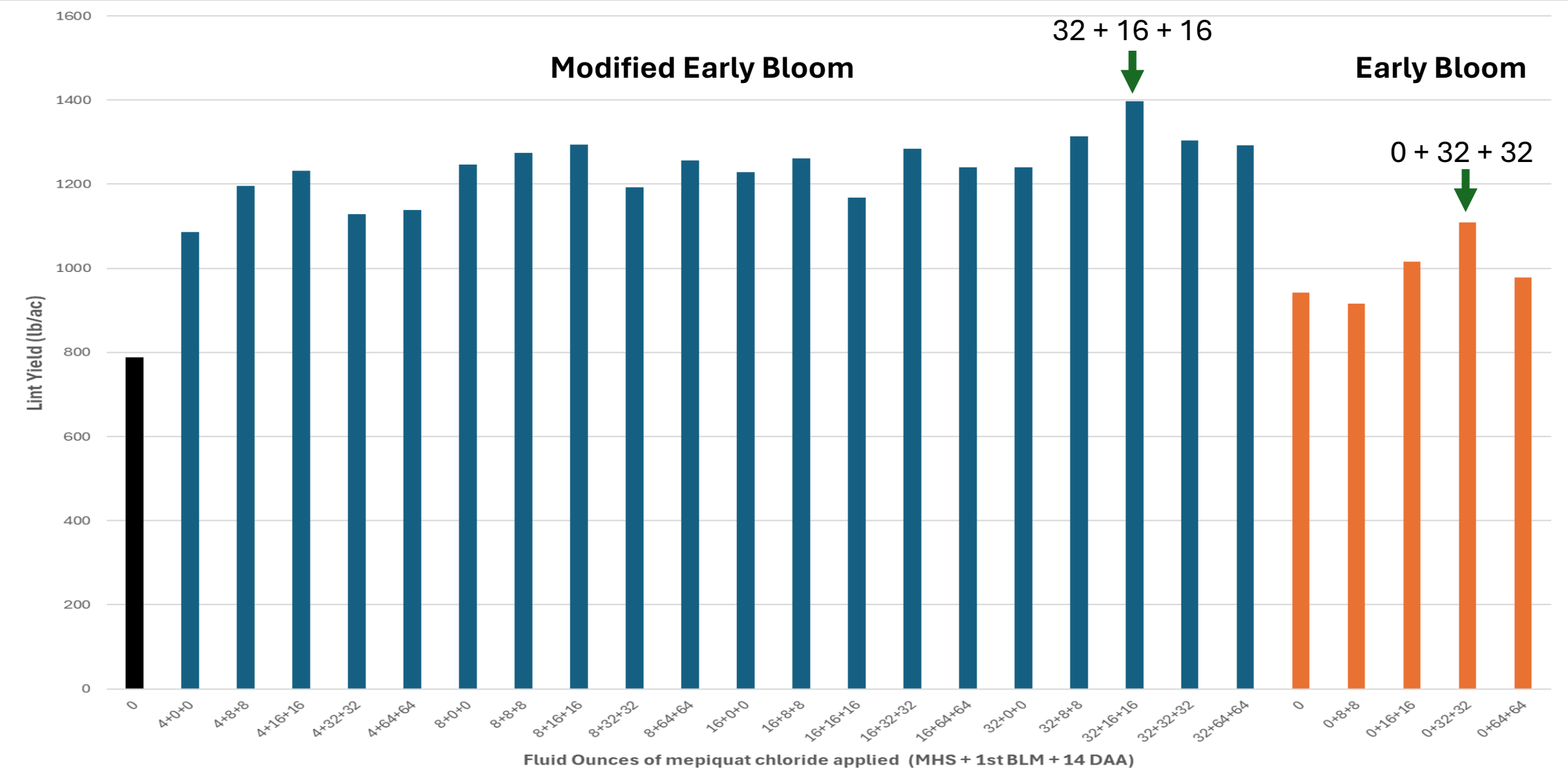


# PGR Application Timing in 2024

|         | <b>5-6 Leaves</b>   | <b>Matchhead Square</b> | <b>1st Week of Bloom</b> | <b>1st WK BLM + 14 Days</b> |
|---------|---------------------|-------------------------|--------------------------|-----------------------------|
| No App  | 1703.960705         | 1604.050885             | 1630.52284               | 1704.434555                 |
| Applied | 1700.418775         | 1800.328595             | 1773.85664               | 1699.944925                 |
|         | <b>-3.541929875</b> | <b>196.2777099</b>      | <b>143.3337992</b>       | <b>-4.489629375</b>         |

|         | <b>5-6 Leaves</b>  | <b>Matchhead Square</b> | <b>1st Week of Bloom</b> | <b>1st WK BLM + 14 Days</b> |
|---------|--------------------|-------------------------|--------------------------|-----------------------------|
| No App  | 992.177031         | 929.1734593             | 944.1990705              | 1030.663335                 |
| Applied | 1059.432726        | 1122.436298             | 1107.410687              | 1020.946422                 |
|         | <b>67.25569527</b> | <b>193.2628387</b>      | <b>163.2116162</b>       | <b>-9.716913514</b>         |

# PGR Application Rate and Timing in 2024



# Actively Managing Crop Protection Inputs

## Southampton Co., VA- Drake Farm OVT Trial

|                      |   |
|----------------------|---|
| <b>Planted:</b>      | May 19, 2021  |
| <b>Harvested:</b>    | Nov. 2, 2021  |
| <b>Population:</b>   | 43,560 plants/acre  |
| <b>Fertilizer:</b>   | 120 lb ac <sup>-1</sup> K <sub>2</sub> O preplant broadcast May 15, 2021<br>25 lb N ac <sup>-1</sup> , 40 lb P <sub>2</sub> O <sub>5</sub> ac <sup>-1</sup> , and 10 lb S ac <sup>-1</sup> in UAN32, 11-37-0, and 12-0-0-26S blend in 2x2 band on May 19, 2021<br>95 lb N per acre 24-0-0-3S on Jul. 16, 2021<br>2 qt. 10% Boron on Jul 16., 2021 |
| <b>PGR:</b>          | 16 fl. oz. Veto <sup>®</sup> on Jul. 29, 2021<br>12 fl. oz. Veto <sup>®</sup> on Aug. 11, 2021  |
| <b>Herbicide:</b>    | 1 qt. 2,4-D Amine 4, 3 fl. oz., 1 qt. Roundup PowerMAX, Valor SX on Apr. 13, 2021<br>32 fl. oz. Liberty <sup>®</sup> 280 SL on May 15, 2021<br>32 fl. oz. Liberty <sup>®</sup> 280 SL on Jun. 15, 2021<br>32 fl. oz. Envy <sup>TM</sup> Six Max on Jul. 12, 2021  |
| <b>Insecticide:</b>  | 8 oz./lb. Livid 90 Prill <sup>®</sup> on May 15, 2021<br>2 fl. oz. Provoke <sup>TM</sup> on Jul. 12, 2021<br>8 oz./lb. Livid 90 Prill <sup>®</sup> , 6.4 oz. Reveal <sup>®</sup> on Jul. 29, 2021<br>8 oz./lb. Livid 90 Prill <sup>®</sup> , 6.4 oz. Reveal <sup>®</sup> on Aug. 11, 2021   |
| <b>Harvest Aids:</b> | 32 oz. Finish 6 Pro <sup>®</sup> , 4 fl. oz. Folex 6EC <sup>®</sup> , 3.2 fl. oz. FreeFall SC <sup>®</sup> , 8 oz. Super Boll <sup>®</sup> on Oct. 13, 2021   |
| <b>Plot Size:</b>    | 2 rows 35' x 36" 4 replications   |
| <b>Soil Type</b>     | Uchee, Slagle and Emporia   |
| <b>Cooperator:</b>   | Matt Drake  |

**Average yield = 1,675 lb per acre**

## Suffolk, VA - Tidewater AREC Location OVT Trial

|                     |   |
|---------------------|---|
| <b>Planted:</b>     | May 4, 2021   |
| <b>Harvested:</b>   | Oct. 27, 2021   |
| <b>Population:</b>  | 43,560 plants/acre  |
| <b>Fertilizer:</b>  | 100 lb of K <sub>2</sub> O ac <sup>-1</sup> on March 31, 2021<br>25 lb N ac <sup>-1</sup> , 40 lb P <sub>2</sub> O <sub>5</sub> ac <sup>-1</sup> , and 10 lb S ac <sup>-1</sup> in UAN32, 11-37-0, and 12-0-0-26S blend in 2x2 band on May 4, 2021<br>95 lb N ac <sup>-1</sup> as 24-0-0-3S dribbled on Jun. 28, 2021<br>2 qt. 10% Boron on Jun. 28, 2021<br>1 qt. 10% Boron on Aug. 11, 2021 |
| <b>PGR:</b>         | 10 fl. oz. Mep <sup>®</sup> 42 on Jul. 6, 2021<br>12 fl. oz. Mep <sup>®</sup> 42 on Jul. 21, 2021<br>3 fl. oz. Mep <sup>®</sup> 6X on Aug. 11, 2021   |
| <b>Herbicide:</b>   | 1.5 pt. 2,4-D Amine on Mar. 28, 2021<br>1 qt. Roundup <sup>®</sup> and 2 oz. Valor <sup>®</sup> on Apr. 7, 2021<br>1 pt. Prowl <sup>®</sup> , 1 qt. Cotoran 4L <sup>®</sup> on May 5, 2021<br>24 fl. oz. Roundup <sup>®</sup> on May 31, 2021   |
| <b>Insecticide:</b> | 12 oz. Orthene <sup>®</sup> 97 on May 31, 2021<br>2 oz. Centric <sup>®</sup> on Jul. 6, 2021<br>2 oz. Transform <sup>®</sup> and 8 fl. oz. Diamond <sup>®</sup> on Jul. 21, 2021<br>10 fl. oz. Besiege <sup>®</sup> and 8 fl. oz. Bidrin on Aug. 11, 2021   |
| <b>Harvest Aid:</b> | 16 fl. oz. Ethephon 6 <sup>®</sup> , 32 oz. Finish 6 Pro <sup>®</sup> , 4 fl. oz. Folex <sup>®</sup> , 3 fl. oz. FreeFall SC <sup>®</sup> on Oct. 1, 2021   |
| <b>Plot Size:</b>   | 2 rows 35' x 36" 4 replications   |
| <b>Soil Type</b>    | Eunola and Dragston   |
| <b>Cooperator:</b>  | Karl Jones  |

**Average yield = 1,642 lb per acre**

# Actively Managing Crop Protection Inputs

- Scouting is critical to high yielding cotton!
- High yielding cotton is a healthier more vigorously growing plant
  - Insects most likely will be attracted to healthier plants
  - Know what insect pest you are targeting and how to correctly identify
    - Thrips? Plant Bugs? Bollworm? Stink Bugs? Aphids?
    - The pest will dictate how you attack the problem
    - Is going to take multiple applications
- Weed management is critical!
  - Use a solid burndown, followed by PRE-, then POST applications with herbicides for residual control
- There is no one-size fits all!!!
  - Except you have to be active managers!

## Sussex Co., VA- Rogers Farm OVT Trial

|               |   |
|---------------|---|
| Planted:      | May 26, 2021  |
| Harvested:    | Nov. 18, 2021   |
| Population:   | 43,560 plants/acre  |
| Fertilizer:   | 0-0-60 broadcast variable rated based on grid sampling (range 0-129 lb K <sub>2</sub> O ac <sup>-1</sup> )<br>25 lb. N ac <sup>-1</sup> , 40 lb P <sub>2</sub> O <sub>5</sub> ac <sup>-1</sup> , and 10 lb S ac <sup>-1</sup> in UAN32, 11-37-0, and 12-0-0-26S blend in 2x2 band on May 26, 2021<br>95 lbs. N per acre 24-0-0-3S on Jul. 21, 2021<br>1 qt. 10% Boron on Aug. 5, 2021 |
| PGR:          | 14 fl. oz. PIX <sup>®</sup> on Jul. 20, 2021<br>16 fl. oz. PIX <sup>®</sup> on Aug. 5, 2021<br>20 fl. oz. PIX <sup>®</sup> on Aug. 14, 2021<br>16 fl. oz. PIX <sup>®</sup> on Aug. 24, 2021   |
| Herbicide:    | 30 fl. oz. Roundup PowerMAX <sup>®</sup> 3, 18 fl. oz. Barrage <sup>®</sup> , 2.3 oz. Hel-fire <sup>®</sup> on Apr. 7, 2021<br>30 fl. oz. Roundup <sup>®</sup> on Jun. 14, 2021<br>2.85 pt. Warrant <sup>®</sup> on Jun. 21, 2021<br>30 fl. oz. Roundup <sup>®</sup> on Jul. 20, 2021   |
| Insecticide:  | 10 oz. Acephate <sup>®</sup> on Jun. 14, 2021<br>8 oz. Acephate <sup>®</sup> on Aug. 5, 2021<br>8 oz. Acephate <sup>®</sup> , 4.5 fl. oz. Bifenthrin on Aug. 14, 2021<br>8 oz. Acephate <sup>®</sup> on Aug. 24, 2021   |
| Harvest Aids: | 32 fl. oz. Finish <sup>®</sup> , 4 fl. oz. Tribufos, 12 fl. oz. Ethephon, 2 fl. oz. Dropp <sup>®</sup> ,<br>2.3 fl. oz. Induce on Oct. 14, 2021   |
| Plot Size:    | 2 rows 35' x 36" 4 replications   |
| Soil Type     | Slagle and Emporia + Slagle   |
| Cooperator:   | Bob Rogers  |

**Average yield = 1,725 lb per acre**

# Summary: High Yielding Cotton on a Budget

- Start with a good high yielding cotton variety!
  - Will not make 3+ bales if your variety selection is poor.
  - Seeding rates from 2 – 2.5 seeds/ row ft. optimize yields
  - Reducing seeding rates from 3 to 2 sd/row ft
    - A bag will plant 7.9 acres compared to 5.28 acres
    - Or \$79/ac vs. \$118/ac
    - Planting right at 2 sd/ft is risky especially in adverse conditions
  - Delaying planting date decreased yield after May 17<sup>th</sup> with the largest yield penalty for cotton planted during June.
  - Higher seeding rates at the later planting dates will increase lint yields. This was most likely due to the limited time for plants to compensate with a shortened bloom period.



# Summary: High Yielding Cotton on a Budget

- Good solid soil fertility program
  - Maintaining soil P and K levels in the M+ to High range
  - 120 lb N has been the optimum N rate for VA cotton following corn and cotton
  - Following legume cover crops can reduce N as much as 50% (\$34/acre)
  - Following peanuts can reduce N up to 33% (\$22.80/acre)
  - Fluid N sources routinely produce high yields with less N
  - If using granular urea you will need to protect with urease inhibitor
- Plant Growth Regulator Management
  - Applying PGR at MHS/1<sup>st</sup> Square controls height and increases lint yields more consistently than later applications
  - Contemporary cotton varieties can handle higher application rates of PGR when environmental conditions are favorable for growth.
- No secret sauce for crop protection
  - **ACTIVE MANAGEMENT**
- Using **FOUR** management decisions
  - Increase revenue through variety selection ~ \$175/acre
  - Decrease seed costs ~ \$30/ac (seeding at 2.3 sd./row ft.)
  - Decrease N rates following peanuts or legume covers ~ \$20 – 30/ac
  - Proper timing of PGR application ~ 100 lb lint per acre (\$69/acre)
  - Total value saved or added ~ \$294/acre
  - That's equivalent to 426 lb lint per acre @ \$0.69/lb







# 2025 Soil Fertility & Crop Nutrition Workshop and Cover Crop Field Tour



Friday, March 21, 2025  
8:00 AM - 4:45 PM



Tidewater AREC | 6321 Holland Road  
Suffolk, VA 23437

## Presentation Topics:

- Row crop and soil fertility
- Plant nutrition
- Cover crops (rotation, herbicides, benefits)

## Details:

- Free event open to farmers, industry, and government agencies
- Lunch provided

## Registration:

<https://bit.ly/CoverCropFieldDay25>



## Agenda for 2025 Soil Fertility Workshop and Cover Crop Field Tour

|          |   |         |  |
|----------|---|---------|--|
| 8:00 AM  | <b>Welcome and Introduction</b><br><i>Dr. Hunter Frame, VA Tech</i>   | 3:55 PM | <b>Utilizing Cover Crops to Offset Fertilizer Inputs for Corn in Virginia</b><br>Dr. Joseph Haymaker, Post Doctoral Researcher, Virginia Tech<br>Dr. Mark Reiter, Soil Fertility Specialist, Virginia Tech |
| 8:10 AM  | <b>In-season potassium management in soybeans.</b><br><i>Dr. Carrie Ortel, Extension Soybean Agronomist, Virginia Tech</i>  |         |  |
| 8:40 AM  | <b>Insight in to grain markets and profitability in today's marketplace.</b><br><i>Mr. Robert Harper, Grain Marketing Specialist, VA Farm Bureau</i>  | 4:20 PM | <b>Planting corn green into hairy vetch (Gluten-free method)</b><br><i>Ms. Jenna Beville, MS Student, Virginia Tech</i><br><i>Mr. Paul Davis, Extension Agent Emeritus, Davis Farms</i>                    |
| 9:10 AM  | <b>Herbicide interactions with cover crops.</b><br><i>Dr. Michael Flessner, Extension Weed Specialist, Virginia Tech</i><br><i>Dr. John Wallace, Weed Specialist, Pennsylvania State University</i> | 4:45 PM | Adjourn  |
| 9:40 AM  | <b>Planting corn green into hairy vetch (Gluten-free method)</b><br><i>Ms. Jenna Beville, MS Student, Virginia Tech</i><br><i>Mr. Paul Davis, Extension Agent Emeritus, Davis Farms</i>             |         |  |
| 10:10 AM | <b>Break (Visit with Sponsors)</b>  |         |  |
| 10:30 AM | <b>Changes in soil health after 8 years of cover crops and no-till. (virtual)</b><br><i>Dr. Trent Roberts, Soil Fertility Specialist, University of Arkansas</i>                                    |         |  |
| 11:15 AM | <b>Biological and biostimulant products in row crops. (virtual)</b><br><i>Dr. Brian Arnall, Extension Specialist for Precision Nutrient Management, Oklahoma State University</i>                   |         |  |
| Noon     | <b>Lunch and visit with Sponsors</b>  |         |  |
| 1:30 PM  | <b>Demonstration of Montag Dry Fertilizer applicator/Hoover Precision Ag Demonstration</b><br><i>Mr. Dave Wharry, Precision Ag Regional Director, Hoover Inc.</i>                                   |         |  |
| 2:30 PM  | <b>Demonstration of Soil Warrior strip-till implement.</b><br>Staff from Environmental Tillage Systems  |         |  |
| 3:30 PM  | <b>Cover crop implementation in a peanut cropping system</b><br><i>Dr. Hunter Frame, Field Crops Agronomist, Virginia Tech</i>  |         |  |

# Thank You! Questions?



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