



## Replicated Agronomic Cotton Evaluation Mixed Technology



| Crop Stage*            | Avg High Temp (°F) | Avg Low Temp (°F) | DD60 (95°F max) | Long Term DD60 | Rain (in)    | Solar Radiation (W/m <sup>2</sup> ) | Total ET (in) | # Hours >95°F | Avg Dev>95°F |
|------------------------|--------------------|-------------------|-----------------|----------------|--------------|-------------------------------------|---------------|---------------|--------------|
| Planting to PHS        | 88.9               | 65.1              | 504.0           | 525            | 4.16         | 183628                              | 7.65          | 21            | 0.27         |
| PHS to First Bloom     | 88.3               | 66.9              | 509.0           | 582            | 5.62         | 182373                              | 6.60          | 11            | 0.07         |
| First Bloom to Cutout  | 91.3               | 66.2              | 517.5           | 593            | 0.64         | 168126                              | 6.38          | 28            | 0.38         |
| Cutout to Defoliation  | 80.2               | 51.7              | 620.5           | 695            | 2.87         | 378912                              | 13.63         | 4             | 0.01         |
| Defoliation to Harvest | 57.4               | 31.1              | 0.0             | 0              | 0.32         | 55952                               | 1.45          | 0             |              |
| <b>Total</b>           |                    |                   | <b>2151.0</b>   | <b>2395</b>    | <b>13.61</b> | <b>968991</b>                       | <b>35.71</b>  | <b>64</b>     |              |

\*PHS @ ≥ 500DD60s; first bloom @ ≥ 1000 DD60s; Cutout = first bloom + 28 d; ET=evapotranspiration; Avg Dev>95°F=average degrees above 95°F when the daily high was ≥ 95°F

Grower Cooperator: Bobby Byrd  
 County Agents: Kristie Keys, Andy Hart  
 Texas A&M AgriLife: Ken Legé, Ph.D.  
 Location: Plainview, TX (Hale Co.)  
 Replicates: 3  
 Plot Size: 8 rows x ~1/2 mi  
 Row Spacing: 30"/50"  
 Beds: No  
 Previous crop(s): Cotton  
 Soil type: Pullman Clay Loam  
 Irrigation: Drip (40"; 3 gpm)

Planting Date: 5/31/2025  
 Seed Treatments: Various fungicide+insecticide  
 Moist. @ planting: Poor-Fair  
 Soil Temp @ planting: 74F  
 Seed/Acre: 40,000  
 GPS Lat: 34.116892  
 GPS Long: -101.788171  
 Elevation: 3411  
 Harvest Date: 12/19/2025

Site damaged from hail in early June; grower managed as lower input after that point.

Sorted by Net Return

| Variety         | Lint Yield (lbs/A) | Turnout (%) | Mic         | Length (in) | Staple (1/32 in) | Strength (g/tex) | Uniformity (%) | Color Grades | Leaf Grade | Loan Value (\$/lb) | Lint Value (\$/A) | Total Crop Value (\$/A) | Net Return (\$/A) |
|-----------------|--------------------|-------------|-------------|-------------|------------------|------------------|----------------|--------------|------------|--------------------|-------------------|-------------------------|-------------------|
| DP1822XF        | 663                | 27.3        | 3.31        | 1.12        | 35.8             | 31.1             | 80.5           | 34, 33, 33   | 2.0        | 0.4330             | 288               | 389                     | 323               |
| FM765AX         | 676                | 30.3        | 3.19        | 1.11        | 35.5             | 30.5             | 81.0           | 34, 33, 34   | 2.7        | 0.4172             | 284               | 371                     | 311               |
| NG3434B3XF      | <b>720</b>         | <b>36.1</b> | 3.06        | 1.14        | 36.3             | 28.1             | 79.9           | 35, 34, 34   | 2.3        | 0.3883             | 282               | 370                     | 293               |
| NG3576XF        | 640                | 30.3        | <b>3.36</b> | 1.17        | 37.4             | 30.2             | <b>81.7</b>    | 34, 34, 34   | 3.3        | 0.4265             | 274               | 357                     | 291               |
| DP2525B3XF      | 651                | 31.6        | 2.95        | <b>1.18</b> | <b>37.9</b>      | <b>34.0</b>      | 81.2           | 34, 34, 34   | <b>2.0</b> | 0.4002             | 260               | 345                     | 271               |
| FM823AXTP       | 585                | 29.5        | 3.11        | 1.12        | 35.7             | 30.9             | 80.3           | 24, 34, 34   | <b>2.0</b> | 0.3872             | 229               | 312                     | 225               |
| Mean            | 656                | 30.9        | 3.16        | 1.14        | 36.4             | 30.8             | 80.8           |              | 2.4        | 0.4087             | 270               | 357                     | 286               |
| LSD             | ns                 | 3.0         | ns          | 0.03        | 1.1              | 1.1              | ns             |              | 0.6        | ns                 | ns                | ns                      | ns                |
| R-square        | 0.63               | 0.72        | 0.59        | 0.69        | 0.69             | 0.88             | 0.62           |              | 0.70       | 0.67               | 0.65              | 0.65                    | 0.70              |
| CV (%)          | 8.4                | 7.5         | 7.8         | 2.4         | 2.4              | 2.8              | 1.2            |              | 18.2       | 7.8                | 14.0              | 12.3                    | 15.4              |
| Prob>F, variety | 0.1716             | 0.0160      | 0.3836      | 0.0315      | 0.0315           | 0.0006           | 0.2746         |              | 0.0204     | 0.3950             | 0.4526            | 0.4223                  | 0.1853            |

### Planting Seed Quality

| Variety         | Plant Population (#/A) | % Stand Establishment | Seed/lb | Warm Germ (%) | Cool Germ (%) | Planting Seed Cost (\$/A) | Seed Yield (lbs/A) | Seed Turnout (%) | Seed Value (\$/A) |
|-----------------|------------------------|-----------------------|---------|---------------|---------------|---------------------------|--------------------|------------------|-------------------|
| DP1822XF        | <b>26281</b>           | <b>65.7</b>           | 4700    | 93            | 79            | 61.96                     | <b>979</b>         | 40.2             | <b>100</b>        |
| FM765AX         | 20183                  | 50.5                  | 5201    | 94            | 60            | 57.00                     | 846                | 38.0             | 87                |
| NG3434B3XF      | 22942                  | 57.4                  | 4938    | 93            | 75            | 72.70                     | 855                | <b>42.9</b>      | 88                |
| NG3576XF        | 23450                  | 58.6                  | 4994    | 95            | 85            | 61.96                     | 810                | 38.2             | 83                |
| DP2525B3XF      | 24394                  | 61.0                  | 5400    | 93            | 71            | 70.22                     | 825                | 40.1             | 85                |
| FM823AXTP       | 24394                  | 61.0                  |         |               |               | 82.91                     | 809                | 40.7             | 83                |
| Mean            | 23607                  | 59.0                  |         |               |               |                           | 854                | 40               | 88                |
| LSD             | ns                     | ns                    |         |               |               |                           | ns                 | ns               | ns                |
| R-square        | 0.89                   | 0.89                  |         |               |               |                           | 0.64               | 0.40             | 0.64              |
| CV (%)          | 9.8                    | 9.8                   |         |               |               |                           | 9.3                | 8.7              | 9.3               |
| Prob>F, variety | 0.1216                 | 0.1216                |         |               |               |                           | 0.1713             | 0.5685           | 0.1713            |

Planting seed costs from PCG Seed Cost Calculator

\* NG3576XF cost substituted for NG 4792 XF

Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value; net return = total crop value - seed cost.

Seed value = seed yield x \$248/metric ton (Feb 2025 price, according to US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts)