

## 2016 University of California UPLAND / Acala Cotton Variety Trial

Dec. 21, 2016 update

Seed cotton yields, mini-gin calculated lint percent and gin turnout, calculated lint yield averages

|   |   |
|---|---|
| Questions?  | Cooperative Project by:   |
| contact: Bob Hutmacher (Univ. CA)<br>Cell: (559) 260-8957<br>email: rbhutmacher@ucdavis.edu | University of CA Coop. Extension (UC-ANR) / Univ. CA Davis Plant Sci Dept. / Univ. CA West Side REC<br><b>Funding by:</b> CA Cotton Growers&Ginners Assoc., CA Cotton Alliance, Cotton Incorporated, UC-ANR/UCCE, UC Davis Plant Sci. Dept.<br><b>Cooperators:</b> multiple growers, Steve Wright, Dan Munk, Brian Marsh, Bill Weir, Mark Keeley, Raul Delgado, TariLee Frigulti, SJV Quality Cotton Growers Assoc.-Shafter, Univ CA Cooperative Extension Tulare, Kings, Fresno, Kern, Merced Counties |

LOCATION: West Side Research & Extension Center - Fresno County (FIELD 16)

HARVEST DATE: 10/14

row spacing = 40 inches

| VARIETY               | SEED COMPANY          | SEED COTTON (lbs/acre) | MINI-GIN LINT PERCENT (%) | MINI-GIN GIN TURNOUT (%) | LINT YIELD*<br>*(calculated as seed cotton yield times Mini-Gin Turnout) | LINT YIELD (as % of Phy-725RF yield) | SEEDCOTTON YIELD (as % of Phy-725 RF yield) |
|-----------------------|-----------------------|------------------------|---------------------------|--------------------------|--|--------------------------------------|---|
| PHY 725RF             | Phytogen              | 6118                   | 42.1                      | 40.8                     | 2496   | 100                                  | 100   |
| PHY 764WRF            | Phytogen              | 5555                   | 46.1                      | 45.0                     | 2499   | 100                                  | 91  |
| DAYTONA RF            | Bayer                 | 5444                   | 46.5                      | 45.2                     | 2461   | 99                                   | 89  |
| FM 1830GLT            | Bayer                 | 5852                   | 47.2                      | 45.1                     | 2637   | 106                                  | 96  |
| FM 1900GLT            | Bayer                 | 5745                   | 45.1                      | 44.2                     | 2542   | 102                                  | 94  |
| FM 1911GLT            | Bayer                 | 5436                   | 46.6                      | 45.2                     | 2456   | 98                                   | 89  |
| FM 2007GLT            | Bayer                 | 5998                   | 44.4                      | 43.1                     | 2586   | 104                                  | 98  |
| FM 2334GLT            | Bayer                 | 5530                   | 46.4                      | 45.2                     | 2502   | 100                                  | 90  |
| DP 1614B2XF           | Monsanto / Delta Pine | 5874                   | 48.9                      | 47.4                     | 2782   | 111                                  | 96  |
| DP 1555B2RF           | Monsanto / Delta Pine | 5888                   | 48.5                      | 46.2                     | 2717   | 109                                  | 96  |
| DP 1646B2XF           | Monsanto / Delta Pine | 6452                   | 48.7                      | 47.1                     | 3039   | 122                                  | 105   |
| DP 1639B2XF           | Monsanto / Delta Pine | 6055                   | 49.3                      | 47.8                     | 2896   | 116                                  | 99  |
| BX 1739GLT            | Bayer                 | 5079                   | 47.7                      | 46.4                     | 2358   | 94                                   | 83  |
| MEAN                  |                       | 5771                   | 46.7                      | 45.3                     | 2613   |                                      |   |
| <sup>a</sup> LSD 0.05 |                       | 338                    | 0.8                       | 0.8                      | 154  |                                      |   |
| <sup>b</sup> %CV      |                       | 4.1                    | 1.2                       | 1.2                      | 4.1  |                                      |   |
| <sup>c</sup> P        |                       | 0.000                  | 0.000                     | 0.000                    | 0.000  |                                      |   |

\* **NOTE: LINT YIELD VALUES** shown were calculated using a mini-gin. This simple ginning method differs from UCCE methods in prior years (mini-gin does not have commercial gin style cleaners. Corrections were calculated for moisture loss/gain between field harvest weight timing and ginning timing, and basic gin loss estimates are typically lower with use of mini-gin. All samples were handled in an identical manner in terms of mini-gin operations, so gin turnout and lint percent numbers represent relative variety differences.

<sup>a</sup> LSD = least significant difference at 5% level (differences in mean values shown that differ by more than LSD value shown are significantly different)

<sup>b</sup> C.V. = coefficient of variation across replications

<sup>c</sup> P = probability (if value shown is 0.05 or less, there is greater than a 95% probability of significant differences between mean values shown)

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**LOCATION: West Side Research & Extension Center - Fresno County (FIELD 16)**

HARVEST DATE: 10/14

row spacing = 40 inches

| VARIETY     | SEED COMPANY          | SEED COTTON (lbs/acre) | 2016 MINI-GIN LINT PERCENT (%) | 2016 MINI-GIN GIN TURNOUT (%) | for comparison:  |             |
|-------------|-----------------------|------------------------|--------------------------------|-------------------------------|--|-------------|
|             |                       |                        |                                |                               | GIN TURNOUTS PERCENT from 2015 COTTON TRIALS (**2015 analyses done using Shafter Research Gin) |             |
|             |                       |                        |                                |                               | West Side REC  | Shafter REC |
| PHY 725RF   | Phytogen              | 6118                   | 42.1                           | 40.8                          | 32.6   | 32.1        |
| PHY 764WRF  | Phytogen              | 5555                   | 46.1                           | 45.0                          | 34.8   | 33.9        |
| DAYTONA RF  | Bayer                 | 5444                   | 46.5                           | 45.2                          | 35.8   | 36.2        |
| FM 1830GLT  | Bayer                 | 5852                   | 47.2                           | 45.1                          | 35.9   | 37.4        |
| FM 1900GLT  | Bayer                 | 5745                   | 45.1                           | 44.2                          | 34.7   | 35.7        |
| FM 1911GLT  | Bayer                 | 5436                   | 46.6                           | 45.2                          |  |             |
| FM 2007GLT  | Bayer                 | 5998                   | 44.4                           | 43.1                          | 33.1   | 34          |
| FM 2334GLT  | Bayer                 | 5530                   | 46.4                           | 45.2                          | 35.7   | 37.2        |
| DP 1614B2XF | Monsanto / Delta Pine | 5874                   | 48.9                           | 47.4                          |  |             |
| DP 1555B2RF | Monsanto / Delta Pine | 5888                   | 48.5                           | 46.2                          |  |             |
| DP 1646B2XF | Monsanto / Delta Pine | 6452                   | 48.7                           | 47.1                          |  |             |
| DP 1639B2XF | Monsanto / Delta Pine | 6055                   | 49.3                           | 47.8                          |  |             |
| BX 1739GLT  | Bayer                 | 5079                   | 47.7                           | 46.4                          |  |             |
| MEAN        |                       | 5771                   | 46.7                           | 45.3                          | * if values not shown, not in 2015 trials  |             |

\*\* Shafter Research Gin is a smaller scale, commercial type gin with lint cleaners. The lint yields shown on the SUMMARY PAGE for this site were determined using the mini-gin turnout % data, which tends to be significantly higher than a more standard type of gin (such as the "Shafter Research Gin" which incorporates lint cleaners). 2015 trial gin turnouts determined using the "Shafter Research Gin" are provided for information only. Since they were determined using different fields in a different year, there is no expectation that the same gin turnouts would apply for 2016 field sites.

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**LOCATION: Shafter Research Station - Kern County**

HARVEST DATE: 10/27

row spacing = 40 inches

| VARIETY               | SEED COMPANY          | SEED COTTON (lbs/acre) | MINI-GIN LINT PERCENT (%) | MINI-GIN GIN TURNOUT (%) | LINT YIELD*<br>(calculated as seed cotton yield times Mini-Gin Turnout) | LINT YIELD (as % of Phy-725RF yield) | SEEDCOTTON YIELD (as % of Phy-725 RF yield) |
|-----------------------|-----------------------|------------------------|---------------------------|--------------------------|---|--------------------------------------|---|
| PHY 725RF             | Phytogen              | 4278                   | 39.7                      | 38.3                     | 1644  | 100                                  | 100   |
| PHY 764WRF            | Phytogen              | 4718                   | 41.7                      | 40.3                     | 1905  | 116                                  | 110   |
| DAYTONA RF            | Bayer                 | 4416                   | 40.0                      | 38.7                     | 1710  | 104                                  | 103   |
| FM 1830GLT            | Bayer                 | 3460                   | 44.7                      | 43.5                     | 1499  | 91                                   | 81  |
| FM 1900GLT            | Bayer                 | 4275                   | 42.8                      | 41.7                     | 1781  | 108                                  | 100   |
| FM 1911GLT            | Bayer                 | 4535                   | 43.9                      | 42.8                     | 1939  | 118                                  | 106   |
| FM 2007GLT            | Bayer                 | 4232                   | 41.4                      | 40.2                     | 1699  | 103                                  | 99  |
| FM 2334GLT            | Bayer                 | 4161                   | 44.1                      | 43.0                     | 1791  | 109                                  | 97  |
| DP 1614B2XF           | Monsanto / Delta Pine | 4789                   | 46.0                      | 44.7                     | 2140  | 130                                  | 112   |
| DP 1555B2RF           | Monsanto / Delta Pine | 4190                   | 45.9                      | 44.8                     | 1872  | 114                                  | 98  |
| DP 1646B2XF           | Monsanto / Delta Pine | 4453                   | 45.4                      | 44.2                     | 1965  | 120                                  | 104   |
| DP 1639B2XF           | Monsanto / Delta Pine | 3827                   | 44.4                      | 43.0                     | 1644  | 100                                  | 89  |
| BX 1739GLT            | Bayer                 | 3377                   | 45.3                      | 43.9                     | 1481  | 90                                   | 79  |
| <b>MEAN</b>           |                       | <b>4209</b>            | <b>43.5</b>               | <b>42.2</b>              | <b>1775</b>   |                                      |   |
| <sup>a</sup> LSD 0.05 |                       | 688                    | 1.0                       | 1.2                      | 273   |                                      |   |
| <sup>b</sup> %CV      |                       | 11.4                   | 1.7                       | 2.0                      | 10.7  |                                      |   |
| <sup>c</sup> P        |                       | 0.003                  | 0.000                     | 0.000                    | 0.001   |                                      |   |

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**2016 University of California UPLAND / ACALA COTTON VARIETY TRIAL**

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