

Texas South Plains Valencia Variety Trials, 2010

with Multi-Year Summary



| | Terry Co. | Bailey Co. |
|------------------------------|----------------------------|----------------------------|
| Cooperator | Ronnie Jordan | Douglas Harper |
| Location | Brownfield | Muleshoe |
| Experimental Design | Modified RCBD (4 reps) | Modified RCBD (4 reps) |
| Plot Size | 4 rows X 40" X 45' | 4 rows X 40" X 40' |
| Total Rainfall + Irrigation | | |
| Inoculant | EMD Optimize Lift (liquid) | EMD Optimize Lift (liquid) |
| Avg. Nodules per Plant | 39 | 22 |
| Fert. (lbs./A)--N/P2O5/K2O/S | | |
| Planting Date | 5/12/10 | 5/28/10 |
| Digging Date | 9/23/10 (134 days) | 10/5/09 (130 days) |
| Threshing Date | 10/1/10 | 10/13/10 |

Assistance from:
 Sean Wallace, Extension assistant, Lubbock
 Monti Vandiver, Bailey-Parmer IPM agent
 Curtis Preston, Bailey Co. ag. agent
 Scott Russell, Terry-Yoakum IPM agent
 Chris Bishop, Terry Co. IPM Agent

| Variety | 2010 Terry Co.† | | | | | 2010 Bailey Co.† | | | | | 2009 Average | | 2009-2010 Average | |
|----------------|-----------------|---------------|----------------|-------|-----------------|------------------|---------------|----------------|-------|-----------------|----------------|------------|-------------------|------------|
| | 27-May Vigor‡ | 27-May Stand‡ | Yield (lbs./A) | %TSMK | Discolor %Black | 14-Jun Vigor‡ | 14-Jun Stand‡ | Yield (lbs./A) | %TSMK | Discolor %Black | Yield (lbs./A) | Avg. %TSMK | Yield (lbs./A) | Avg. %TSMK |
| Valencia C | 3.0 | 3.0 | 2,826 | 69.3 | 0.0 | 3.0 | 3.0 | 2,952 | 68.0 | 4.5 | 2,889 | 68.7 | 2,667 | 69.1 |
| GENTEX 101 | 3.0 | 3.0 | 3,193 | 69.9 | 1.0 | 3.0 | 3.3 | 2,769 | 68.7 | 5.8 | 2,981 | 69.3 | 2,867 | 69.4 |
| GENTEX 112 | 2.8 | 2.8 | 3,113 | 69.5 | 0.5 | 2.4 | 2.6 | 2,655 | 66.6 | 6.0 | 2,884 | 68.0 | 2,715 | 68.7 |
| GENTEX 118 | 3.0 | 3.0 | 2,723 | 68.4 | 1.0 | 3.0 | 3.0 | 2,872 | 67.1 | 7.3 | 2,797 | 67.7 | 2,949 | 67.2 |
| GENTEX 119 | 2.5 | 2.4 | 2,911 | 67.2 | 2.5 | 2.9 | 3.0 | 3,156 | 65.0 | 5.5 | 3,034 | 66.1 | 2,815 | 67.9 |
| GENTEX 122 | 3.0 | 2.8 | 3,045 | 69.2 | 1.0 | 3.3 | 2.8 | 3,448 | 65.2 | 8.8 | 3,246 | 67.2 | 2,931 | 68.1 |
| GENTEX 136 | 3.0 | 3.0 | 3,228 | 68.4 | 0.5 | 2.9 | 2.6 | 3,654 | 68.3 | 7.5 | 3,441 | 68.3 | 3,073 | 68.9 |
| Kennedy | 3.0 | 3.0 | 2,928 | 68.7 | 0.0 | 3.5 | 3.0 | 2,814 | 67.0 | 5.5 | 2,871 | 67.8 | 2,626 | 68.4 |
| TxL054529-27¶ | 3.0 | 2.5 | 3,371 | 69.1 | 0.5 | 4.0 | 3.0 | 3,194 | 65.6 | 8.3 | 3,283 | 67.4 | 3,164 | 67.3 |
| TxL054529-33¶ | 3.0 | 2.8 | 3,747 | 68.8 | 0.5 | 3.8 | 3.0 | 3,706 | 63.8 | 7.0 | 3,726 | 66.3 | 3,338 | 66.6 |
| Tamnut OL06 | 1.6 | 0.5 | 3,431 | 68.4 | NA | 2.4 | 2.4 | 3,263 | 64.8 | NA | 3,347 | 66.6 | 3,553 | 66.7 |
| Average | 2.8 | 2.6 | 3,138 | 68.8 | 1 | 3.1 | 2.9 | 3,135 | 66.4 | 7 | 3,137 | 67.6 | 2,973 | 68.0 |

| | | | | | | | |
|---|---------|--------|--|--|--|---------|--------|
| P-Value, Variety | <0.0001 | 0.2974 | | | | <0.0001 | 0.0981 |
| Fisher's Prot. Least Signif Diff, (0.05)§ | 332 | NS | | | | 374 | NS |
| Coefficient of Variation, CV (%) | 11.5 | 2.0 | | | | 13.6 | 3.8 |

†Average plant population 55,800 plants/A for Terry Co., and 64,000 plants/A for Bailey Co.

‡Visual rating for early season vigor/emergence and stand: 0 = none, 1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent.

§Numbers in the column followed by the same letter are not significantly different at 95% confidence level.

¶Texas AgriLife Research experimentals with Valencia parentage & high O/L trait coming from Spanish. Plants are darker green mid- and late season.

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