AGRONOMIC AND TEST INFORMATION:

TEST: 2009 Irrigated Confectionary Sunflower Performance Test

LOCATION: Texas AgriLife Research North Plains Research Field, Etter, Texas (Moore County, 10 miles north of Dumas)

COOPERATORS: Dr. Calvin Trostle, Extension agronomist; Dillon Spradley, research assistant

SOIL TYPE: Sherm clay loam

ROW WIDTH: 30"


LAND PREPARATION: Field cultivator, rolling cultivator (for listing)

DATE PLANTED: Replanted 7/8/09 with cones mounted on a JD Max-Emerge planter

SEEDS PER ACRE: Seeds dropped at 1.2 seeds per foot of 30" row (20,900 seed/A), and any doubles were thinned to 1 plant

PLANTS PER ACRE: Population for actual plant stand was calculated for the harvest area; trial average 15,400 plants per acre

PLOT LENGTH: 4 rows X 25'

FERTILIZER: 100 N—30 P₂O₅—0 K₂O

HERBICIDE: Trifluralin, 0.75 qts./A

INSECTICIDE: 3.84 oz. pyrethroid (Warrior T) 8/28, 9/2, & 9/8 using a 4-row hand boom & back pack sprayer

RAINFALL: July, 2.7", August, 1.9", Sept. 0.8", Oct. 1-20, 0.1"; Seasonal total, 5.5".

IRRIGATIONS: Three row waterings, ~5" each

DATE HARVESTED: 11/12/09

SIZE HARVESTED PLOT: 2 middle rows X 22'

TEST DESIGN: Randomized complete block

NUMBER ENTRIES: 8

NUMBER REPLICATIONS: 4

NUMBER ROWS/PLOT: 4
TEST MEANS: 2,092 lbs./A; yield corrected to 10% moisture; average seed >20/64”, 86%

TEST C.V.: 12.2%

SISTER TRIAL SITES?: No. Trial at Halfway, TX failed due to carryover cotton herbicides.

COMMENTS:

The trial was originally planted 19 June 09, but was damaged severely by jackrabbits. We were unable to replant until July 8, which was 3 days past Extension’s last recommended planting date for the area. This conservative date likely ensures that in just about any year a sunflower crop reaches adequate maturity. Maturation concerns were made worse by nighttime low temperatures of 26ºF the night of Oct. 10-11. Visually, it appeared that most hybrids did reach sufficient maturity although some test weights were slightly reduced. The average confectionary hybrid at Etter reached half bloom than the adjacent oilseed hybrid trial (33 hybrids).

The test was harvested by hand, and then threshed through a stationary thresher after seed samples had dried considerably. A clipper machine was used to clean trash from all samples.

Yield was good averaging 2,092 lbs./A in spite of the late planting and October freeze (PLSD of 308 lbs./A). Crop value averaging $460/A was calculated using $23/16/cwt for large/small seed which reflected 2009 regional crop prices.

For comparison, an oilseed hybrid trial (33 hybrids) to the side and managed the same yielded 2,646 lbs./A, with an average crop value of $534/acre.

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For further information about this test, contact Dr. Calvin Trostle, Extension agronomy, Lubbock, (806) 746-6101, ctrostle@ag.tamu.edu

For further information about the Texas AgriLife Research Crop Testing Program, contact Mr. Dennis Pietsch, Crop Testing Director, Texas AgriLife Research, College Station, TX, (979) 845-8505, croptest@neo.tamu.edu

Please visit the Crop Testing webpage at http://varietytesting.tamu.edu

For further sunflower production resources for Texas visit our sunflower page at http://lubbock.tamu.edu/sunflower
## 2009 Irrigated Confectionary Sunflower Hybrid Test

**Etter, Moore Co., Texas**

### CONFECTIONARY, 2009

<table>
<thead>
<tr>
<th>Company or Brand</th>
<th>Hybrid</th>
<th>Lodging %</th>
<th>Height (ft.)</th>
<th>Avg. Plants/acre</th>
<th>Days to Half Bloom</th>
<th>Test Weight (lbs./bu)</th>
<th>% Seed Retained Over Screen</th>
<th>Seed Yld @ 10% H₂O</th>
<th>Crop Value ($/acre)‡</th>
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<tbody>
<tr>
<td>Croplan</td>
<td>CG179</td>
<td>1.5</td>
<td>5.8</td>
<td>14,700</td>
<td>52</td>
<td>20.5</td>
<td>23</td>
<td>62</td>
<td>89</td>
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<td>0.5</td>
<td>6.1</td>
<td>16,500</td>
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<td>20.9</td>
<td>54</td>
<td>85</td>
<td>96</td>
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<tr>
<td>Red River</td>
<td>RRC 2216</td>
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<td>53</td>
<td>20.4</td>
<td>59</td>
<td>87</td>
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<td>Red River</td>
<td>RRC 2217</td>
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<tr>
<td>Seeds 2000</td>
<td>Jaguar CL†</td>
<td>3.2</td>
<td>6.2</td>
<td>15,700</td>
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<td>19.0</td>
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<tr>
<td>Seeds 2000</td>
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<td>Triumph</td>
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<td>19.3</td>
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**Average** 1.9 6.2 15,400 54 19.6 62.7 85.6 94.7 2,092 460

<table>
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<tr>
<th>P-Value (Hybrid)</th>
<th>0.2597</th>
<th>&lt;0.0001</th>
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<td>NS</td>
<td>0.2</td>
<td>NS</td>
<td>1.1</td>
<td>0.9</td>
<td>11.5</td>
<td>6.8</td>
<td>4.6</td>
<td>306</td>
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<tr>
<td>Coeff. of Variation, CV (%)</td>
<td>136</td>
<td>4.9</td>
<td>10.3</td>
<td>2.0</td>
<td>5.1</td>
<td>31.6</td>
<td>12.7</td>
<td>4.4</td>
<td>12.2</td>
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†Clearfield (herbicide tolerant) hybrid
‡Confectionary, $23/cwt for seed >20/64", $16/cwt. all other seed (most common 2009 TX High Plains price).
¶Numbers in the same column that vary by more than the least significant difference (PLSD) are significantly different at a 95% confidence level.

Replanted 8 July 2009; harvested 12 November 2009
Rainfall, 7/1-10/15, 5.5"; Furrow irrigation, ~15"; Fertilizer, 100N-30P₂O₅-0K.
~20,900 seeds/A (1.2 seeds/ft. on 30" rows), all doubles thinned to 1 plant
Harvested area: 4 reps, 22' X middle 2 rows

**Trial Notes:** The trial was originally planted 19 June 09, but was damaged severely by jackrabbits. We were unable to replant until July 8, which was 3 days past Extension's last recommended planting date for the area. This conservative date likely ensures that in just about any year a sunflower crop reaches adequate maturity. Maturation concerns were made worse by nighttime low temperatures of 26ºF the night of Oct. 10-11. Visually, it appeared hybrids did reach sufficient maturity although some test weights were slightly reduced.

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