

Agronomic & Test Information:
Lubbock, TX Oilseed Hybrid Sunflower Trial, 2010

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| TEST: | 2010 Irrigated Oilseed Sunflower Hybrid Trial |
| LOCATION: | Texas AgriLife Research & Extension Center, Lubbock, Texas |
| TEST COORDINATORS: | Dr. Calvin Trostle, Texas AgriLife Extension Service agronomist, and Mr. Sean Wallace, Extension assistant, Lubbock; Mr. Dennis Pietsch, Texas AgriLife Research Crop Testing Program, College Station |
| SOIL TYPE: | Amarillo fine sandy loam |
| ROW WIDTH: | 40" |
| PREVIOUS CROP: | Soybean |
| LAND PREPARATION: | Limited tillage (disk and field cultivator) |
| DATE PLANTED: | June 30, 2010 |
| SEEDING RATE: | Overplanted at ~30,000 seeds/A then thinned in late July (6-10" tall) to about 1.5 plants per foot. |
| PLANTED AREA: | 2 rows x 25' |
| FERTILIZER: | 109 lbs. N/A as urea, 32-0-0 (60 N preplant June 28, 40 N on July 26, and 9 N from P fertilizer), 30 lbs./A P ₂ O ₅ as 10-34-0 June 28. |
| HERBICIDE: | Treflan (pre-emerge). Extreme levels of pigweed emerged after the large rains on July 7-8, and hand weeding continued until mid-August. |
| INSECTICIDE: | Three complete sprays with Hero at full rate. In addition, three early blooming hybrids were sprayed on Aug. 17 in advance of the first full spray on August 19. |
| RAINFALL: | June = 1.3"; July = 6.2"; August = 0.4; September = 1.6"; Total = 9.5" |
| IRRIGATION: | Four furrow irrigations (the first applied ~June 20 to provide planting moisture) averaging ~4" each; 16" total. |

DATE HARVESTED: October 11, 2010 (by hand, then threshed with stationary thresher in November)

SIZE HARVESTED PLOT: Two 40" rows X 22' (65 square ft.)

TEST DESIGN: Randomized block (by rep)

NUMBER ENTRIES: 22

NUMBER REPLICATIONS: 3 (reduced land area available due to replanting; a few hybrids were planted with the fourth rep.)

TEST MEAN: 2,262 lbs./A yield (corrected to 10% moisture) with 40.6% oil content. Average crop value = \$354/A.

TEST YIELD C.V.: 15.9%

COMMENTS: This trial was initially planted in mid-May then planted again in early June as an apparent unknown herbicide issue led to ~25% stand establishment. The trial was moved to a smaller test site (hence the 2-row plots rather than four row tests) and planted thick then thinned by hand.

Sunflower head moth pressure was moderate. Early blooming hybrids were sprayed by hand on August 17, and the first full spray occurred August 19th (four-row back pack sprayer, 15 gal/A). Two additional sprays occurred on 5-day intervals.

Good yields were obtained. Significant differences were obtained in yield, oil content, and crop value. Short stature hybrids (Triumph) were only a few inches shorter than several other hybrids in the trial. Overall, NuSun and high oleic sunflowers were similar in trial average yield, oil content, and crop value; however, hybrids advertised as short stature had moderately higher average for yield, oil content, and crop value.

An adjacent confectionary sunflower hybrid trial (9 hybrids) yielded 2,008 lbs./A (61.8% seed >20/64") with an average crop value of \$450/A.

For further information about this report or for sunflower production in Texas, contact Dr. Calvin Trostle, extension agronomist, Lubbock, (806) 746-6101, ctrostle@ag.tamu.edu or visit <http://lubbock.tamu.edu/sunflower>

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, dpietsch@ag.tamu.edu

Please visit the Texas AgriLife Crop Testing Program webpage at <http://varietytesting.tamu.edu>