

Agronomic & Test Information:  
Lubbock, TX Dryland Hybrid Sunflower Trial, 2010  
(Oilseed & Confectionary)

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| 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  |
| SOIL TYPE:           | Amarillo fine sandy loam   |
| ROW WIDTH:           | 40"  |
| PREVIOUS CROP:       | Soybean  |
| LAND PREPARATION:    | Limited tillage (disk and field cultivator)  |
| DATE PLANTED:        | May 20, 2010   |
| SEEDING RATE:        | 21,800 seeds/A for oilseed, 17,400 seeds/A for confectionary; plants were thinned to ~17,000 plants/A for oilseed and ~13,000 plants/A for confectionary.                |
| PLANTED AREA:        | 4 rows x 25'   |
| FERTILIZER:          | 40 lbs. N/A as urea in late May, 20 lbs./A P <sub>2</sub> O <sub>5</sub> as 10-34-0 May 27 (total N = 46 lbs. N/A).  |
| HERBICIDE:           | Treflan (pre-emerge).  |
| INSECTICIDE:         | Two complete sprays with Hero at full rate. In addition, three hybrids which began blooming earlier were sprayed with a hand sprayer prior to sprays of the entire test. |
| RAINFALL:            | Pre-plant, Feb.-April, 8.9"; May-August, 9.7".   |
| DATE HARVESTED:      | October 4, 2010 (by hand, then threshed with stationary thresher in November)  |
| SIZE HARVESTED PLOT: | Two 40" rows X 23' (65 square ft.)   |
| TEST DESIGN:         | Randomized block (by rep)  |
| NUMBER ENTRIES:      | 9 (six oilseed, three confectionary)   |

NUMBER REPLICATIONS: 4

TEST MEAN: Oilseed, 2,272 lbs./A (6 hybrids); confectionary, 2,054 lbs./A (3 hybrids).

TEST YIELD C.V.: 13.2%

COMMENTS: Texas AgriLife has not conducted dryland sunflower hybrid trials in West Texas for many years. A limited number of hybrids were chosen at our discretion for planting on dryland at Lubbock as well as Lamesa (destroyed by carrot beetles) and potentially on farm northwest of Lubbock (not planted). This planting received exceptional rainfall before planting over a 3-month period hence soil moisture profile was essentially full. Heavy rains were again received in early July just about a week before initial bloom. This trial yielded numerically higher than the irrigated tests that were planted in late June.

Overall, oilseed slightly outyielded confectionary. Average oil content was 39.4% but confectionary seed size was excellent topping 80% in all three hybrids.

No major yield limiting factors were observed in the test. Yields were about double of what would normally be expected in dryland in West Texas. Plant populations were appropriate for dryland but demonstrated the yield potential of sunflower when conditions are exceptionally favorable.

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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>