

Agronomic & Test Information:
Lubbock, TX Oilseed Hybrid Sunflower Trial, 2011

TEST:	2011 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:	Fallow
LAND PREPARATION:	Limited tillage (beds relisted with rolling cultivator)
DATE PLANTED:	June 6, 2011
SEEDING RATE:	Overplanted at ~26,000 seeds/A then thinned in late June (4-6" tall) to about 1.33 plants per foot; all doubles were thinned to singles. Due to extreme drought, stand was somewhat sporadic.
PLANTED AREA:	4 rows x 22'
FERTILIZER:	None—area was fertilized with 120 lbs. N/A and 30 lbs./A P ₂ O ₅ in June 2010, but then fallowed.
HERBICIDE:	Treflan (pre-plant, 0.5 quarts per acre before listing) and Spartan (3.75 oz. per acre, applied right after planting).
INSECTICIDE:	Three complete sprays with Warrior at full rate (3.84 oz./A and ~10 gallons/A of water, using a four-row backpack sprayer).
RAINFALL:	June = 0.0"; July = 0.2"; August = 1.2"; September = 0.8"; Total = 2.2".
IRRIGATION:	Four furrow irrigations (the first applied ~June 6 to provide planting moisture) averaging ~4.5" each; 18" total.
DATE HARVESTED:	October 6-7, 2011 (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: 26
NUMBER REPLICATIONS: 4
TEST MEAN: 1,978 lbs./A yield (corrected to 10% moisture) with 41.2% oil content (range 37.4% to 44.6%). Average crop value = \$568/A.
TEST YIELD C.V.: 13.3%

COMMENTS: This trial was subject to excessive heat and drought conditions in 2011 where season-long rainfall and the number of days at 100°F or higher broke all-time records by considerable margins for Lubbock. Excessive heat and drying conditions after irrigation to establish the stand led to somewhat sporadic stands. Due to rapid drying even more irrigation could have been applied.

Sunflower head moth pressure was heavy, and three sprays were made on six day intervals using Warrior.

Good yields were obtained. Hybrid type comparisons were made (page 2 of table). High oleic sunflowers yielded comparable to NuSun, and the yield of ExpressSun hybrids as a group was about 200 lbs. lower than Clearfield or non-herbicide tolerant hybrids. There was no yield drag with short stature hybrids, which yielded higher in oil content than the trial average.

An adjacent confectionary sunflower hybrid trial (12 hybrids) yielded 1,387 lbs./A (86.0% seed >20/64") with an average crop value of \$441/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>