

Agronomic & Test Information:  
**Etter, Moore Co., TX Oilseed Hybrid Sunflower Trial, 2010**

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TEST:	<b>2010 Irrigated Oilseed Sunflower Hybrid Trial</b>
LOCATION:	Texas AgriLife Research North Plains Research Field, <b>Etter, Texas</b> (Moore County, 10 miles north of Dumas)
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:	Sherm clay loam
ROW WIDTH:	30"
PREVIOUS CROP:	Wheat (2009 harvest)
LAND PREPARATION:	Field cultivator, rolling cultivator (for listing)
DATE PLANTED:	June 29, 2010
SEEDING RATE:	Overplanted at ~30,000 seeds/A then thinned in mid July (4-6" tall) to about 1.25 plants per foot; all doubles were thinned to singles; the resulting stand was still thicker than desired as a better target would have been ~15,000-17,000 plants per acre (1 plant per foot or slightly less).
PLANTED AREA:	4 rows x 25'
FERTILIZER:	100 N—30 P <sub>2</sub> O <sub>5</sub> —0 K <sub>2</sub> O, applied pre-plant
HERBICIDE:	Treflan (pre-emerge).
INSECTICIDE:	Two sprays (Aug. 20 & 25) with Hero at full rate for agronomic purposes using a 4-row backpack sprayer (~15 gal/A).
RAINFALL:	June = 6.1"; July = 1.9"; August = 4.0"; September = 0.3"; Total = 12.3"
IRRIGATION:	Three furrow irrigations averaging ~5" each; 15" total.
DATE HARVESTED:	October 27, 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: 26

NUMBER REPLICATIONS: 4

TEST MEAN: 2,498 lbs./A yield (corrected to 10% moisture) with 41.1% average oil content. Average crop value = \$396/A.

TEST YIELD C.V.: 13.2%

COMMENTS: Stands were thick due to overplanting, but should have been thinned an additional 10-25% from final plant population. The trial was fenced after planting to protect from jack and cottontail rabbits.

Sunflower head moth pressure was moderate. At the point of determining whether to spray the field a third time to cover a few plots that were just completing bloom (~3 days after 50% bloom) no moths were found in the field so a third spray was not conducted. Little evidence of sunflower moth larvae damage was observed at harvest, and there were no *Rhizopus* infection.

Good yields were obtained with yields that were similar on average to 2009 (though planted later on July 8). Statistical analysis separated out major differences among hybrids in yield (range 1,800 to 2,900 lbs./A) and in oil content (38 to 44% among commercial hybrids). Also, two-year averages (2,629 lbs./A) for several hybrids note above average yield and oil content among fourteen hybrids. As a whole, Clearfield and ExpressSun herbicide tolerant hybrids had yields that were slightly reduced from non-herbicide tolerant lines. Any possible significant differences may gradually disappear as companies improve the yield of these herbicide trait hybrids.

Hybrids advertised as short stature were about 12 to 24" shorter than conventional height hybrids, however, the differential in height appears to be less than in past years. The height of some short stature hybrids was less relative to conventional height hybrids compared to differences noted in past trials.

An adjacent confectionary sunflower hybrid trial (10 hybrids) yielded 2,012 lbs./A (66% large seed >20/64") with an average crop value of \$463/A.

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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>