

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

TEST:	2010 Irrigated Confectionary Sunflower Hybrid Trial
LOCATION:	Texas AgriLife Research North Plains Research Field, Etter, Texas (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 a targeted population of 1 plant 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 plant per acre.
PLANTED AREA:	4 rows x 25'
FERTILIZER:	100 N—30 P ₂ O ₅ —0 K ₂ 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: 10
NUMBER REPLICATIONS: 4
TEST MEAN: 2,012 lbs./A yield (corrected to 10% moisture) with 66% large seed (see note below). Average crop value = \$463/A.
TEST YIELD C.V.: 12.5%

COMMENTS: Stands were thick due to overplanting, but should have been thinned an additional 10-20% from final plant population. High populations in Texas High Plains confectionary have been shown to reduce the percentage of large seed by up to 20%. Five hybrids still had 70% seed >20/64". 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.

Good yields were obtained with yields that were essentially the same on average as 2009 (though planted later on July 8). Statistical analysis separated out differences in yield at the top and the bottom. High % large seed had a strong influence on crop value. For the second year in a row significantly lower yields and lower percentage of large seeds were observed for Croplan CG 179. Clearfield hybrids (three) yielded near the trial average or better. Two-year results are presented for five of ten hybrids.

Test weight was lighter than desired in the overall trial with five of ten hybrids recording a test weight \leq 19.0 lbs./bu. By comparison, nine of these hybrids planted at Lubbock the next day averaged a test weight that was 2.5 lbs./bu. higher.

An adjacent oilseed sunflower hybrid trial (26 hybrids) yielded 2,498 lbs./A (41.1% oil content) with an average crop value of \$396/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>