

Agronomic & Test Information:
Ellis County (Bardwell), TX Oilseed Hybrid Sunflower Trial, 2010

TEST:	2010 Rainfed Sunflower Hybrid Trial
LOCATION:	Near Bardwell, Ellis Co., Texas
COOPERATORS:	Bob & Steven Beakley
TEST COORDINATORS:	Mr. Dennis Pietsch, Texas AgriLife Research Crop Testing Program, College Station; Mr. Glen Moore, Ellis-Navarro Co. Extension IPM agent; Dr. Calvin Trostle, Texas AgriLife Extension Service agronomist, Lubbock
SOIL TYPE:	Houston black clay
ROW WIDTH:	30"
PREVIOUS CROP:	Corn
LAND PREPARATION:	Limited tillage (disk and field cultivator)
DATE PLANTED:	April 1, 2010
SEEDING RATE:	Overplanted at ~25,000 seeds/A then thinned on April 29 (6-10" tall) to 1 plant every 10" (21,800 seeds/A); all doubles were thinned to singles
PLANTED AREA:	4 rows x 30'
FERTILIZER:	200 lbs./A of 32-0-0 pre-emerge (64N) 7 gallons of 9-18-9 at planting (equivalent to 7/14/7 lbs./A) Total N = ~71 lbs. N per acre
HERBICIDE:	Spartan (pre-emerge)
INSECTICIDE:	Sprayed four times with different pyrethroids (control was poor hence 3 rd & 4 th spray) at full rate. Concerns exist that aerial spray was possibly less than the labeled minimum of 2 gal/A (whereas 3 gal/A would definitely provide improved coverage)
RAINFALL:	March = 3.5"; April = 5.0"; May = 2.5"; June = 1.0"; July = 0.0"; Total = 12.0"
IRRIGATION:	None

DATE HARVESTED: August 9, 2010 (by hand, then threshed with stationary thresher on August 10, 2010)

SIZE HARVESTED PLOT: One 30" row X 26' (65 square ft.)

TEST DESIGN: Randomized block (by rep)

NUMBER ENTRIES: 13

NUMBER REPLICATIONS: 4

TEST MEAN: 1,478 lbs./A yield (corrected to 10% moisture) with 42.1% oil content (oil content >40% nets a price premium)

TEST YIELD C.V.: 18.4%

COMMENTS: Early season production conditions were favorable for sunflower as the season started with a full profile of moisture from fall and winter rains though wet soil conditions prevailed through late March. Timely rains occurred in April and early-May. No appreciable moisture was received after bloom (mid-June), thus probably reducing potential yield. The test block received 8.5" of rainfall from planting until physiological maturity. Basically, the crop was produced from subsoil moisture in addition to early-season rainfall.

Sunflower head moth control was poor, and the field was sprayed four times. Low gallonage per acre from the aerial applicator may have contributed to reduced moth control.

A companion confectionary sunflower hybrid trial adjacent to the oilseed test averaged 1,543 lbs./A with an average crop value of \$343/acre.

Crop value was calculated using a different price depending on the oilseed type (\$1.50 higher for high oleic). If oilseed hybrids were viewed in terms of biodiesel production then calculated oil yield ranged from 58 to 113 gallons per acre.

Appreciation is expressed to Mr. Russell Sutton, assistant research scientist, Texas AgriLife Research, Commerce, for providing the threshing equipment.

For further information about this report or for 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

For further information about Texas sunflower production in general, contact Dr. Calvin Trostle, extension agronomist, Lubbock, (806) 746-6101, ctrostle@ag.tamu.edu or visit

<http://lubbock.tamu.edu/sunflower>

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