

Agronomic & Test Information:  
**Corpus Christi, TX Confectionary Hybrid Sunflower Trial, 2010**

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TEST:	<b>2010 Rainfed Confectionary Sunflower Hybrid Trial</b>
LOCATION:	Texas AgriLife Research & Extension Center, Corpus Christi, TX
TEST COORDINATORS:	Dr. Dan Fromme, Texas AgriLife Extension Service agronomist, Corpus Christi; Mr. Dennis Pietsch, Texas AgriLife Research Crop Testing Program, College Station; Mr. Clinton Livingston & Mr. Rudy Alaniz, Texas AgriLife Extension Service assistants, Corpus Christi; Dr. Calvin Trostle, Texas AgriLife Extension Service agronomist, Lubbock
SOIL TYPE:	Orelia clay
ROW WIDTH:	38"
PREVIOUS CROP:	Fallow
LAND PREPARATION:	Limited tillage
DATE PLANTED:	March 9, 2010
SEEDING RATE:	Overplanted at ~27,000 seeds/A then targeted for thinning at 1 plant per 12" (~13,800 seeds/A); due to skips in initial stand (doubles and triples), stands were thinner but relatively uniform
PLANTED AREA:	4 rows x 35'
FERTILIZER:	Residual fertilizer remained from 2009 fertilizer which was applied, but then no crop planted due to drought
HERBICIDE:	Prowl H <sub>2</sub> O (2 pints/A) at planting
INSECTICIDE:	Sprayed with Mustang Max (4 oz./A) on May 17, 21, & 28.
RAINFALL:	February = 4.42"; March = 1.15"; April = 1.90"; May = 0.31"; June = 6.97"; Total = 14.75"
IRRIGATION:	None
DATE HARVESTED:	July 7, 2010 (harvested by hand six days after Hurricane Alex then later threshed with a stationary thresher)
SIZE HARVESTED PLOT:	One 38" row X 35' (111 square ft.)

TEST DESIGN: Randomized block (by rep)  
NUMBER ENTRIES: 8  
NUMBER REPLICATIONS: 4  
TEST MEAN: 1,460 lbs./A yield (corrected to 10% moisture) with 58% large seed  
TEST YIELD C.V.: 14.1%

COMMENTS: Rainfall was well above normal through planting then adequate through the cropping season with the exception of May. Soil profile moisture was nearly saturated at planting, and moisture was available to the plants for the entire season. No visible wilting or stress was observed. Head moth pressure was never heavy, but the test was sprayed three times to ensure good control. Lodging coincided with heavy rain and strong winds from Hurricane Alex on June 30-July 1 (>6" of rain) right before harvest. Lodging was due to root upheaval rather than stalk breakage; with the weight of the head, the wind, and the soft soil, some plants fell over. This was more pronounced for confectionary hybrids where the head is larger than for oilseed hybrids, which are planted at higher plant population. A plant was considered lodged if it had fallen well below the harvest height of a combine header or was on the ground.

Confectionary seed was priced at \$22/cwt. This is the most common means of pricing confectionary sunflower in South Texas rather than a two-tiered price for large (>20/64") and small seed. The price is equivalent to \$25/\$15 with 70% large seed.

Confectionary seed size ranged from mediocre to good, or 42 to 70%. Plant population was slightly lower than targeted, but plants were uniformly spaced which is often more important than actual plant number. Test weights were generally good for confectionary.

An adjacent oilseed sunflower hybrid test yielded 1,539 lbs./A with a crop value of \$232/acre.

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For further info about this test or sunflower production in South Texas consult Dr. Dan Fromme, Extension agronomist, Texas AgriLife Extension Service, Corpus Christi, (361) 265-9203, [dfromme@ag.tamu.edu](mailto:dfromme@ag.tamu.edu)

For further info. 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](mailto:dpietsch@ag.tamu.edu)

Please visit the Texas AgriLife Crop Testing Program webpage for sunflower as well as hybrid testing information for corn, grain sorghum, and forage at <http://varietytesting.tamu.edu>

For further information about sunflower production in Texas, contact Dr. Calvin Trostle, extension agronomist, Lubbock, (806) 746-6101, [ctrostle@ag.tamu.edu](mailto:ctrostle@ag.tamu.edu) or visit <http://lubbock.tamu.edu/sunflower>

## 2010 Confectionary Sunflower Hybrid Trial Corpus Christi, Texas (Coastal Bend Region)

Planted March 9, 2010; harvested July 7, 2010; February-June rainfall, 14.75"

Company or Brand	Hybrid	Hybrid Type†	Days to Half Bloom	Plant Height (inches)	Avg. Plants/acre	Lodging %	Test Weight (lbs./bu)	%Seed Retained Over Screen		Seed Yield ,@10% H2O (lbs./A)	Crop Value (\$/Acre)‡
								>22/64"	>20/64"		
Croplan	CG 179		68	55	11,000	4	21.3	13.0	42.4	1,407	\$ 309
Dahlgren	9530		70	54	10,300	7	24.7	25.1	56.6	1,381	\$ 304
Dahlgren	9592		69	56	10,600	10	22.7	31.3	64.2	1,651	\$ 363
Dahlgren	9530CL	CL	71	57	10,100	5	25.2	20.6	49.2	1,553	\$ 342
Seeds 2000	Jaguar	CL	72	54	10,400	3	22.8	25.9	58.8	1,582	\$ 348
Seeds 2000	Panther II		72	56	10,500	16	23.0	28.7	57.7	1,249	\$ 275
Triumph	768C		71	52	9,700	12	20.3	35.1	69.6	1,304	\$ 287
Triumph	777C		72	58	11,700	15	22.3	35.2	63.3	1,550	\$ 341
<b>Average</b>			70	55	10,600	9	22.8	26.9	57.7	1,460	\$ 321

P-Value (Hybrid)	<0.0001	0.4447	0.5616	0.0341	<0.0001	0.1365	0.0324	0.0123	0.0123
Fisher's Protected LSD (0.05)¶	1	NS§	NS	9	1.3	NS	15.2	228	\$ 50
Coefficient of Variation, CV (%)	2.4	6.6	12.8	74.2	7.6	44.2	21.0	14.1	14.0

†CL = Clearfield herbicide tolerant

§NS, not significant at 95% confidence level.

‡Pricing for 2010 Texas Coastal Bend at \$22/cwt. for all seed sizes. Other regions normally market sunflower seed in a two-tier pricing system, e.g. \$25/cwt for large seed (>20/64"), \$15/cwt. for small seed (equals \$22/cwt. at 70% large seed).

¶Numbers in same column that vary by more than least sig. difference (PLSD) are significantly different at 95% confidence level.

**Trial Notes:** Rainfall was above normal through planting then adequate through the cropping season except May. Soil moisture was near full capacity at planting and remained high through the season. Lodging (root upheaval, not stalk breakage) coincided with heavy rain, strong winds, and soft soils from Hurricane Alex on June 30-July 1 (>6" of rain) right before harvest. A plant was lodged if it fell well below the harvest height of a combine header or was on the ground. Plants/A was lower than the target of 13,800 plants/A due to small skips in stand.

An adjacent oilseed sunflower hybrid trial (10 hybrids) yielded 1,539 lbs./A with an average crop value of \$232/acre.

For further info about this test or sunflower production in South Texas consult Dr. Dan Fromme, Extension agronomist, Texas AgriLife Extension Service, Corpus Christi, (361) 265-9203, dfromme@ag.tamu.edu

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Please visit the Crop Testing webpage at <http://varietytesting.tamu.edu> for sunflower and other crop hybrid information.

For additional sunflower production resources for Texas contact Extension agronomist Dr. Calvin Trostle, Lubbock, Texas AgriLife Extension Service, Lubbock, (806) 746-6101, ctrostle@ag.tamu.edu, or visit <http://lubbock.tamu.edu/sunflower>