

AGRONOMIC AND TEST INFORMATION: LEONARD

TEST: **2009 Rainfed Sunflower Hybrid Trial, Leonard, TX**

LOCATION: Leonard, Texas

COOPERATORS: Mr. Russell Sutton, Texas AgriLife Research, Commerce
Dr. Calvin Trostle, Texas AgriLife Extension Service agronomist, Lubbock
Mr. Dennis Pietsch, Texas AgriLife Research Crop Testing Program, College Station

SOIL TYPE: Houston black clay

ROW WIDTH: 30"

PREVIOUS CROP: Corn

LAND PREPARATION: Chiseled, disked, and field cultivated

DATE PLANTED: April 7, 2009

SEEDING RATE: Oilseed, ~21,800 seeds/A (1.25 seeds/ft.)
Confectionary, ~17,400 seeds/A (1.00 seeds/ft.)

PLOT LENGTH: 4 rows x 25.5'

FERTILIZER: Applied 150+0+0, banded 6" from plants on May 22, 2009

HERBICIDE: Applied 1 qt/A Sequence, post-plant

INSECTICIDE: Hand-sprayed 1 pt/A of Dimetholate for head moths

RAINFALL: Was not recorded at the test site, but was recorded near the test block. March = 9.8"; April = 7.0"; May = 6.7"; June = 2.7"; July = 4.0"; August = 2.4"; Total = 32.6"

IRRIGATION: None

DATE HARVESTED: August 18, 2009

SIZE HARVESTED PLOT: 125 square feet.

TEST DESIGN: Randomized block (by rep)

NUMBER ENTRIES: 12

NUMBER REPLICATIONS: 4

NUMBER ROWS/PLOT: 4

TEST MEAN: 1,385 lbs./A; yield corrected to 10% moisture

TEST YIELD C.V.: 18.6%

COMMENTS: Due to wet conditions, the plants were slow to emerge and did suffer some stand loss. The overall plant heights were drastically reduced. Thus trial stands were thinner than anticipated, about 2/3 of targeted plant population, although moderate yields were still achieved. Plant population was a significant factor in this test with a correlation between plant population vs. yield of $r = 0.68$. We usually don't expect to see this much difference. Statistically, the yield results were not different at a 95% confidence level, however, if 90% was used the results are different.

Crop value was calculated using a slightly different price for oilseeds (\$1/cwt. higher for high oleic). The crop value for the single confectionary hybrid in this trial was somewhat higher due to the price offered for confectionary contracts in Central Texas in 2009. However, confectionary is usually graded much harder for trash, etc. thus the actual crop value may be somewhat less than the reported value.

If oilseed hybrids were viewed in terms of biodiesel production then calculated oil yield per acre ranged from 58 to 105 gallons per acre.

For further information about this report or 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, croptest@neo.tamu.edu

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

2009 Hybrid Oilseed Sunflower Trial--Leonard, Texas (Rainfed)

Conducted by Russell Sutton, Research agronomist, Texas AgriLife Research, Commerce, (972) 331-5362, rlsutton@ag.tamu.edu

Coordinated by Texas AgriLife Research Crop Testing Program, Calvin Trostle, Texas AgriLife Extension

Service agronomist, Lubbock (806) 746-6101, ctrostle@ag.tamu.edu

Oilseed, ~21,800 seeds/A (1.25 seeds/ft. on 30" rows); Confectionary, ~17,400 seeds/A (1.0 seeds/ft.)

Harvested area (by hand): 4 reps, 125 sq. ft.

Planted April 7, 2009, harvested August 18, 2009.

Rainfall, March 1 to phys maturity, 32.6", applied fertility, 100N-0P2O5-0K.



Brand	Hybrid	Market & Oil Type†	Avg. Plants/acre	Height (feet)	Days to 50% Bloom ,@ R5.2	Test Weight (lbs./bu)	% Oil Content ,@ 10% Moisture	Oil Yield/acre (lbs./A)	Seed Yld ,@ 10% H ₂ O (lbs./A)	Crop Value/acre (\$) [‡]
Croplan	343 DMR HO	HO	10,700	N	N	28.2	38.2	440	1,150	\$ 189
Croplan	369 DMR NS	NS	12,700	o	o	26.5	44.2	677	1,530	\$ 266
Croplan	378 DMR HO	HO	10,900	t	t	26.7	43.6	666	1,528	\$ 278
Croplan	378DMR NS	NS	10,000			27.7	44.5	599	1,347	\$ 235
Mycogen	8H449DM	HO	10,400	R	R	29.9	45.7	596	1,303	\$ 247
Mycogen	8N358CLDM	NS,CL	10,600	e	e	29.4	45.3	689	1,519	\$ 269
Mycogen	8N453DM	NS	13,000	c	c	30.5	48.0	792	1,649	\$ 306
Mycogen	8N510	NS	12,600	o	o	27.6	42.5	589	1,387	\$ 233
Seeds 2000	Blazer CL	NS,CL	13,000	r	r	27.6	45.0	542	1,205	\$ 212
Triumph	664	NS	11,000	d	d	30.4	45.7	673	1,475	\$ 263
Triumph	S671	NS,SS	9,400	e	e	28.1	39.1	458	1,171	\$ 184
				d	d					
Seeds 2000	Panther II	Conf.	10,800			20.4	71.5§	NA	1,356	\$ 302
		<i>Average</i>	11,300			28.4‡	43.8	611	1,388	\$ 249
		<i>P-Value</i>	0.0722			<0.0001	<0.0001		0.0647	
		<i>Least Significant Difference, LSD (0.05)‡</i>	NS			1.8	2.3		NS	
		<i>Coefficient of Variation (%CV)</i>	17.4			10.5	7.4		18.6	

†Oilseed types: Nu = NuSun oil, HO = high oleic oil, SS = short stature oil, CL = Clearfield.

‡Test weight average for oilseeds only.

§Confectionary hybrid with percent seed > 20/64"

¶Oilseed--2:1 premium/discount vs. 40% oil: Nu @ \$16.00/cwt, HO @ \$17.00/cwt., Conf. @ \$26/cwt. for seed >20/64", \$13/cwt. if smaller.

Trial notes: Due to wet conditions, plants were slow to emerge and did suffer some stand loss. Overall plant heights were drastically reduced. Thus trial stands were thinner than anticipated, about 2/3 of targeted plant population, although moderate yields were still achieved. Plant population was a significant factor in this test with a correlation between plant population vs. yield of $r = 0.68$. We usually don't expect to see this much difference. Statistically, the yield results were not different at a 95% confidence level.

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For further sunflower production resources for Texas contact Calvin Trostle or visit <http://lubbock.tamu.edu/sunflower>