



## CANOLA OILSEED CROP EVALUATION

**Texas AgriLife Extension Service**  
NUECES COUNTY, 2011

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### **Summary**

This test was located at the Research & Extension Center on Hwy 44. Soil moisture conditions at planting were marginal. Although there was not a statistical difference between varieties, numerically the best performing Canola variety in this test was DKL 72-55 at 808 pounds of seed per acre. A lack of soil moisture late in the growing season hurt yields.

### **Objective**

To determine the best Canola varieties for yield and production in South Texas and determine the economics of producing these crops and potential risks associated with production.

### **Materials and Methods**

Canola was planted November 18, 2010, at Texas AgriLife Research & Extension Center on Clarkwood Road. The soil at seeding depth was 1.0 inch and soil moisture was marginal. A drill placed seed in 9-inch rows. Soil test indicated a pH of 8.0 with a fertilizer recommendation of 85-40-0 for 2,000 canola yield potential. Fertilizer of 100-40-0 was applied on November 16, 2010 and incorporated. Treflan @ 1.5 pt/ac was incorporated on November 16, 2010.

Very cold temperatures were measured February 2<sup>nd</sup> and 3<sup>rd</sup>, as the average temperature on February 3<sup>rd</sup> was only 28 degrees F, while the low temperature was 24 degrees F. Freeze damage was not seen on canola.

Cultivars were hand harvested on April 19, 2011. Samples were then thrashed in a portable thrashing machine, and weighed.

**Table 1: Agronomic data for Cool Season Oilseed Variety demonstration, Research & Extension Center Nueces County, Texas, 2011.**

<b>Planting Date:</b> November 18, 2010	<b>Plot Size:</b> 4' x 20' replicated four times	<b>Row Width:</b> 9 inch
<b>Fertility:</b> 11/16 100-40-0	<b>Soil Type:</b> Clareville loam	<b>Previous Crop:</b> Cotton
<b>Planting Rate:</b> 4.5 lbs/ac	<b>Herbicide:</b> Treflan @ 1.5 pt/A	<b>Harvest:</b> 4/19/2011 Hand Harvest

### **Results and Discussion**

Rainfall recorded during the growing season was as follows; November = 0.03, December = 0.78, January = 3.79, February = 0.20, March = 0.43, April = 0.0, for a total of 5.23 inches.

Dry conditions certainly hurt yields, especially later in the growing season at pod fill time. Temperatures in March and April were above normal as well.

From a bio-diesel perspective (assuming 20 pounds of canola can be converted to 1 gallon of bio-diesel) the average production of this test (419 pounds per acre) would result in producing more than 20 gallons of bio-diesel per acre.

**Table 2: Comparison of lodging, plant height, bloom date, and yield per acre from hand harvest, Research & Extension Center, Nueces County, Texas, 2011**

<b>Spring Canola Variety</b>	<b>Lodging (0-5) 5=Extreme</b>	<b>Plant Height (Inches) 4/19/11</b>	<b>Bloom (%) 3/7/11</b>	<b>Yield<sup>1</sup> (lbs./acre)</b>
DKL 72-55	0	36	60	808 a
RUBWCS1	0.75	31	60	615 a
CARGILL V-1040	0	33	10	536 a
DKL 30-42	0.25	32	50	526 a
RUBWCS2	0.25	32	50	487 a
CARGILL IMC 205	0	27	2	458 a
UISC 00.3.1.17	0	30	89	451 a
DKL 72-40	0	33	90	436 a
RUBWCS4	0.25	37	10	424 a
CLEARWATER	1	37	75	391 a
RUBWCS6	1.5	40	2	363 a
CARGILL V-1037	0	34	1	355 a
DKL 51-45	0	32	80	350 a
RUBWCS3	0.25	31	50	331 a
ARRIBA	0	30	85	289 a
RUBWCS7	0	36	5	157 a
RUBWCS5	1	39	1	140 a
<i>LSD (P=.05)</i>				444.2
<i>CV</i>				76.92
<i>MEAN</i>	0.3	34	42	419

<sup>1</sup>Yield is adjusted to 10% moisture. Lodging: 0= none, 5 = extreme



### **Conclusions**

Using the market price at harvest (\$22 per cwt), the top yielding variety had a gross value of \$177/acre, while the least productive hybrid was valued at \$31 per acre, a difference of \$146 per acre. This significant difference between hybrids illustrates the need to continue to evaluate hybrids for their production performance under local conditions. Yields were reduced due to lack of moisture late in the growing season.

### **Acknowledgements**

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