

### Oilseed Sunflower Hybrid Trial, McCook, TX (Hidalgo Co.)

Conducted by Dennis Pietsch, Crop Testing Program director, College Station, (979) 845-8505, dpietsch@ag.tamu.edu

Mike Hudsonpillar/HK Farms II, cooperators; Planted 2/12/2015, harvested 6/24/2015, 30" rows (non-irrigated)

Summarized by Dr. Calvin Trostle, Extension agronomist, Lubbock, (806) 723-8432, ctrostle@ag.tamu.edu

OILSEED		Hybrid Trait†	Half Bloom (days)	Plant Height (in.)	Plants per Acre	Lodging %	Blank Seed %	Test Wt. (Lbs./bu)	%Oil Content	Yield (lbs./A) (10% H2O)	Lbs. oil/acre	Flat Rate Crop Value \$/A‡	Oil Crop Value w/ %Oil \$/A‡	
Company	Hybrid													
DuPont Pioneer	P63HE60	HO, EX		60	15,600	13	2	29.3	41.2	1,612	664	339	347	
DuPont Pioneer	P63ME80	Nu, EX		66	16,300	11	5	27.4	42.8	1,917	822	\$	\$	
DuPont Pioneer	P64ME01	Nu, EX		67	13,600	18	3	26.8	40.0	2,226	892	\$	\$	
Mycogen	8H449CLDM	HO, CL		64	14,800	21	16	26.1	43.1	1,800	776	378	402	
Mycogen	8H570SCL	HO, CL, SS		45	18,200	25	43	20.4	38.6	851	330	179	174	
Mycogen	8H859CL	HO, CL		70	12,100	24	35	22.9	37.6	1,130	425	237	226	
Nuseed	Camaro II	Nu, CL		71	12,800	11	2	26.8	40.7	1,748	713	\$	\$	
Nuseed	Cobalt II	HO, CL		68	17,300	8	2	26.0	39.8	1,768	705	371	370	
Nuseed	Daytona	HO, CL		65	12,600	8	6	23.1	35.7	1,547	552	325	297	
Nuseed	Hornet	HO, CL		66	15,500	14	5	24.9	43.1	1,968	849	413	439	
Nuseed	NHK12M054	HO?		68	18,000	7	5	27.9	42.0	1,944	816	408	425	
Syngenta	3845 HO	HO		65	10,300	20	13	21.4	36.9	1,222	451	257	241	
Syngenta	7111 HO/CL/DM	HO, CL		66	16,400	11	6	27.1	36.4	1,784	649	375	347	
Syngenta	SY 7717	HO, CL		65	16,800	19	9	25.1	41.0	2,109	866	443	452	
Terral Seed	REV SF364	Nu, EX		73	15,500	30	9	25.7	37.1	1,474	547	\$	\$	
Terral Seed	REV SF385	HO, EX		73	14,500	11	5	28.4	38.5	1,759	678	369	359	
<b>Oilseed Average</b>				<b>66</b>	<b>15,020</b>	<b>16</b>	<b>10</b>	<b>25.6</b>	<b>39.7</b>	<b>1,679</b>	<b>671</b>	<b>\$353</b>	<b>\$352</b>	
<b>Range--High</b>				<b>73</b>	<b>18,200</b>	<b>30</b>	<b>43</b>	<b>29.3</b>	<b>43.1</b>	<b>2,226</b>	<b>892</b>	<b>\$443</b>	<b>\$452</b>	
<b>Range--Low</b>				<b>45</b>	<b>10,300</b>	<b>7</b>	<b>2</b>	<b>20.4</b>	<b>35.7</b>	<b>851</b>	<b>330</b>	<b>\$179</b>	<b>\$174</b>	
P-value (4 replications)				<0.0001	0.1128	0.0249	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0011
Fisher's Protected Least Sig. Diff.¶				5	NS	13	4	1.4	1.9	219	108	\$46	\$54	
Coefficient. of Variation, %CV				10.6	24.9	68.5	127	10.3	6.7	19.1	26.9	23.1	26.0	

†Hybrid traits: HO, high oleic fatty acid; Nu, NuSun/mid oleic fatty acid; CL, Clearfield herbicide tolerance; EX, ExpressSun herbicide tolerance; SS, short stature.

‡2015 LRGV high oleic oilseed @ \$21/cwt. (flat rate) + sample calc. with 2-for-1 oil premium vs. 40.0% oil.

§No Texas market price for NuSun mid-oleic oilseed in 2015. Elsewhere in the U.S. Nu is generally priced \$1-2/cwt. below HO.

¶Numbers in the same column that vary by more than the LSD are significantly different at the 95% confidence level.

**COMMENTS:** LRGV sunflower experienced frequent heavy rainfall in 2015. Some lodging was due to the soybean stem borer. No multi-year data is available as the 2014 oilseed trial at Monte Alto was irrigated. Test weight was unacceptably low for some hybrids, especially those that had poor seed fill. We have not observed poor seed fill on specific hybrids in previous years in the Texas LRGV, but this trial, an adjacent county agent oilseed trial, and farm surveys in early June indicated significant lack of seed fill in some hybrids. Blank seed patterns (semi-circles) on the head suggested that individual rain events and wet conditions may have contributed to lack of seed fill, but only for specific hybrids. An adjacent AgriLife Crop Testing Program confectionary sunflower hybrid trial (4 entries) yielded 1,643 lbs./A with average 72% seed >22/64" and an oil content (flat rate crop value, \$361/A; calculated based on seed size, \$408/A).

For further information about this test or the Texas A&M AgriLife Crop Testing Program, contact Mr. Dennis Pietsch, Crop Testing Program director,

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Visit the Crop Testing Program at <http://varietytesting.tamu.edu> for sunflower and other crop hybrid info. For more Texas sunflower production resources contact Extension agronomist Dr. Calvin Trostle, Texas A&M AgriLife Extension, Lubbock, (806) 723-8432, ctrostle@ag.tamu.edu, or visit <http://lubbock.tamu.edu/sunflower>