

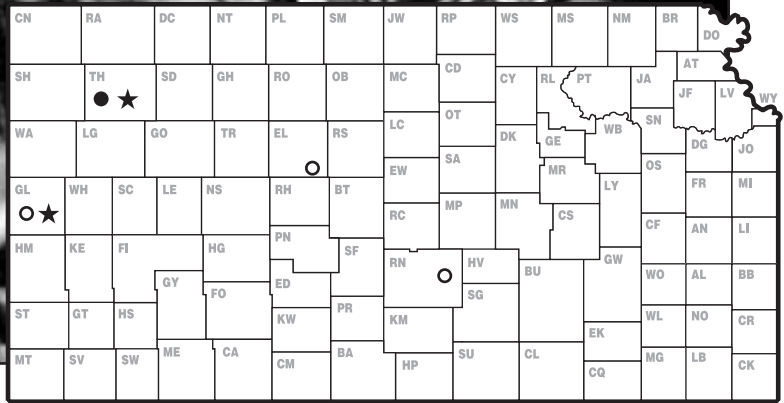
2007

Kansas Performance Tests with **Sunflower Hybrids**

Report of Progress 989



Kansas State University
Agricultural Experiment Station
and Cooperative Extension Service



● summer fallow ○ dryland ★ irrigated

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INTRODUCTION

Objectives and Procedures

Sunflower performance tests were conducted in 2007 by the Kansas Agricultural Experiment Station to provide farmers, extension workers, and private industry with unbiased agronomic information on many of the sunflower hybrids marketed in the state. Tests were financed in part by entry fees from private companies. Companies known to be developing and marketing sunflowers were invited to participate and enter hybrids on a voluntary fee-entry basis. As a result, not all hybrids grown in the state were included in tests, and hybrids were not grown uniformly at all locations.

Test locations in 2007 were Thomas County – on fallow; Thomas and Greeley Counties – irrigated; and Ellis, Greeley, and Hutchinson Counties – dryland. Oilseed entries were grown at all locations. Confectionary entries were evaluated in Thomas County – irrigated, and Greeley County – irrigated and dryland. The confectionary test at Thomas County dryland was abandoned due to very poor stands. Oilseed and confectionary entries were planted separately in all tests. Entries were planted in four-row, replicated plots at all locations. To ensure uniform and adequate stands, all tests except those in Thomas County were planted at a high seeding rate and were hand thinned after emergence to desired stands. Tests in Thomas were planted to stand with a modified Monosem Vacuum Planter.

Environmental factors affecting test results and cultural practices are discussed individually for each of the test sites. Test results for 2007 and period-of-years average data are included in Tables 1 through 9. Entrants and entries in 2006 tests are listed in Table 10.

Data Interpretation

Yields are reported as lbs seed/acre adjusted to 10% moisture content.

Days to half bloom is number of days from date of planting to date when 50% of plants were in bloom.

Lodging percentage is based on counts of lodged and total plants in harvested areas at all locations.

Oil percentage was obtained from samples submitted under code number to the Kansas Grain Inspection Service for analysis and is reported on a 10% moisture basis. Samples for all tests were derived by compositing replications by entry for each location and subsampling.

Oil yields are reported as net lbs oil/a.

Seed-size percentage analysis for confectionary-type entries was performed at the Northwest Research-Extension Center on cleaned samples submitted from each of the tests. Separation by seed size was made by screening a weighed sample through a series of six sieves (22/64, 21/64, 20/64, 19/64, 18/64, and 16/64-round holes) secured on a Ro-Tap mechanical shaker.

Statistical analysis: Conducting perfect tests is virtually impossible because soil fertility, moisture, and other environmental factors vary. Therefore, small differences in results might have no real meaning. To help interpret data, we applied a statistical technique, analysis of variance, wherever possible. Such analysis requires repeating whole sets of varieties or treatments several times and placing individual varieties or treatments as they would be placed by chance alone. Results of the analyses are reported in terms of least significant differences (LSD). If two means differ by more than the LSD (.05), such a difference would be due to chance variation only 5% of the time. So, it's 95% probable that the difference was due to treatment. If means do not differ by as much as the LSD, then little confidence can be placed in the importance of varietal or treatment differences. The coefficient of variability (CV) represents an estimate of the precision of replicated yield trials. Trials with a CV ranging from 10 to 15% are usually acceptable for performance comparisons. Trials with a CV greater than 15% provide only a rough guide to hybrid performance.

ACKNOWLEDGEMENTS

Cooperation of research center personnel who performed many of the field operations is sincerely appreciated. Vicki Brown, secretary, and Jane Lingenfelser, coordinator – Kansas Crop Performance Tests, assisted in preparing this report, and temporary workers Trenton Powell and Katie Friesen helped with seed counting, plot thinning, and maintenance. Mary Knapp at the Weather Data Library provided climatological data, and James R. Cochrane, Assistant Scientist, posted data to the Kansas Crop Performance Test Web site.

NORTHWEST KANSAS OILSEED SUNFLOWER TESTS

Northwest Research-Extension Center, Colby; Patrick Evans, agronomist

Keith silt loam; corn in 2006

60 - 30 - 0 lb/a N, P, K

Planted on 6/7/2007; Harvested on 10/6/2007

Target stand of 23,000 plants/acre; 9.1 in. spacing

Normal growing conditions throughout the growing season. Stalk rot and stem weevil caused some lodging.

Month	Precipitation		Average Temp.	
	2007	Norm.	2007	Norm.
Nov.-Mar	7.1	3.0	32	32
April	3.5	1.8	47	49
May	1.2	3.1	63	60
June	1.6	3.0	71	70
July	2.7	3.1	76	76
August	3.3	2.2	78	74
Sept.	1.2	1.5	68	65
Oct.	0.1	1.0	55	53
Totals:	20.6	18.6	52	51

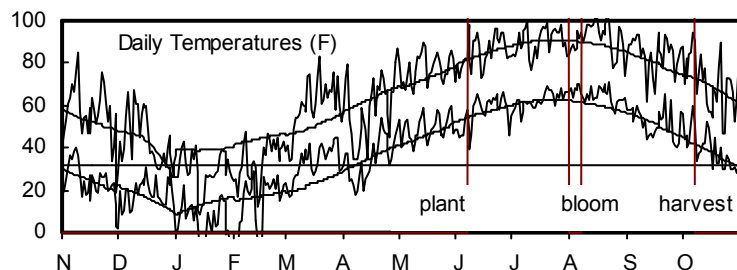
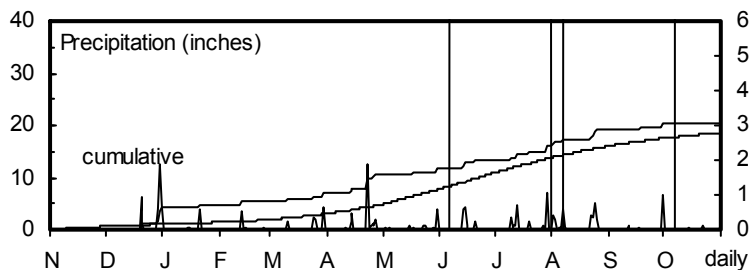


Table 1. Colby Irrigated Oilseed Sunflower Performance Test, 2007.

BRAND and HYBRID	Yield (lbs/a)	Yield as % of Test Average	Oil Content (%)	Oil Yield (lbs/a)	Days to Half Bloom	Plant Height (in.)	Lodging (%)	Test Weight (lbs/bu)	Seed Weight (g/200)
ADVANTA PACIFIC AP561NS	3097	109	42.2	1307	60	68	8	28.1	10.6
ADVANTA PACIFIC AP534NS/CL	2793	99	39.9	1114	58	72	11	27.6	12.5
ADVANTA PACIFIC F41269 DM3	2704	96	41.9	1133	59	58	5	29.7	11.3
ADVANTA PACIFIC F51132NS/CL/D	2766	98	43.0	1189	59	64	7	28.3	11.3
ADVANTA PACIFIC F51311 NSDM	2954	104	41.6	1229	60	64	8	30.3	11.6
CROPLAN GENETICS 3080DMR	2988	106	45.3	1354	55	62	11	29.8	10.3
CROPLAN GENETICS 356NS	3047	108	44.0	1341	57	61	10	30.2	12.1
CROPLAN GENETICS 378DMR,NS	2772	98	41.2	1142	57	70	12	28.2	13.4
CROPLAN GENETICS 528CL NS	2197	78	41.9	921	55	64	14	28.1	11.5
CROPLAN GENETICS 564CL NS	2930	104	44.3	1298	60	68	5	31.6	10.9
CROPLAN GENETICS 584CL NS	2888	102	39.9	1152	59	70	7	27.6	12.6
CROPLAN GENETICS 803DMR NS	1808	64	43.5	786	54	61	27	27.0	10.2
DEKALB DKF34-33	2503	88	43.1	1079	56	62	17	28.9	12.0
DEKALB DKF34-80CL	2670	94	42.6	1137	57	63	7	29.0	12.4
DEKALB DKF37-31NS	2892	102	42.5	1229	57	62	12	28.7	14.2
DEKALB DKF38-45NS	2577	91	46.1	1188	55	65	18	29.9	13.0
DYNA-GRO SEEDS 94C38	3404	120	40.0	1362	58	69	8	28.2	12.5
DYNA-GRO SEEDS 94N82	3092	109	44.7	1382	58	65	10	29.4	11.1
DYNA-GRO SEEDS FX07419	2869	101	41.9	1202	60	69	5	28.5	10.4
DYNA-GRO SEEDS FX07519DM	2616	92	43.5	1138	58	66	21	29.0	10.3
FONTANELLE 902 NS	2686	95	45.1	1211	58	72	20	27.7	11.8
FONTANELLE IS4668	2611	92	39.9	1042	59	69	11	27.0	12.2
FONTANELLE IS5880	2426	86	41.4	1004	58	64	10	27.4	10.8
GARST 4420	2422	86	41.1	995	60	70	8	28.2	11.0
GARST 4596 HO	3023	107	40.3	1218	56	66	8	31.5	13.6
GARST 4651 NS	2812	99	40.5	1139	57	69	10	28.0	13.6
GARST XF07NS75	3025	107	40.9	1237	56	68	16	31.7	13.8
MONSANTO MH6638	2699	95	43.6	1177	57	66	17	29.3	10.9
MONSANTO MH6639	2713	96	43.3	1175	57	66	11	28.6	11.5
MONSANTO MH6640	3147	111	44.1	1388	57	65	8	29.3	11.3
MYCOGEN 8H449DM	3160	112	45.2	1428	57	67	6	30.8	11.7
MYCOGEN 8H419CL	3254	115	42.5	1383	57	66	4	27.8	10.7
MYCOGEN 8N337DM	2698	95	44.8	1209	54	63	18	30.2	11.5

Table 1. Colby Irrigated Oilseed Sunflower Performance Test, 2007, continued.

BRAND and HYBRID	Yield (lbs/a)	Yield as % of Test Average	Oil Content (%)	Oil Yield (lbs/a)	Days to Half Bloom	Plant Height (in.)	Lodging (%)	Test Weight (lbs/bu)	Seed Weight (g/200)
MYCOGEN 8N453DM	3225	114	45.4	1464	57	67	11	30.8	11.8
MYCOGEN 8N386CL	2615	92	40.4	1056	57	67	4	26.7	11.9
MYCOGEN 8N510	3126	111	44.2	1382	58	63	7	29.6	10.1
PIONEER 63M91	2714	96	43.3	1175	56	73	10	30.0	12.6
PIONEER 64H41	2766	98	40.2	1112	56	69	5	32.5	14.3
TRIUMPH 636	2681	95	44.9	1204	58	67	13	26.7	13.5
TRIUMPH 645	2543	90	45.5	1157	58	68	20	27.4	12.4
TRIUMPH 845HO	2528	89	45.2	1143	59	69	14	26.9	12.2
TRIUMPH R657	3058	108	45.8	1401	59	70	13	28.2	12.9
TRIUMPH R664	3245	115	45.5	1476	59	71	7	30.2	11.7
TRIUMPH R859HOCL	2853	101	42.2	1204	60	68	13	30.3	10.2
TRIUMPH s672	3020	107	45.8	1383	59	43	7	30.7	9.5
TRIUMPH s675	3190	113	48.0	1531	61	45	14	31.0	11.3
TRIUMPH s678	3219	114	44.4	1429	60	54	4	30.8	11.5
TRIUMPH TRX7434HOCL	2459	87	41.7	1025	59	70	17	30.6	9.3
TRIUMPH TRX7442	2448	87	42.7	1045	57	70	9	26.0	13.1
TRIUMPH TRX7449	3043	108	44.7	1360	60	69	6	30.2	12.2
TRIUMPH TRXs5423	2798	99	45.1	1262	59	44	4	29.2	9.2
TRIUMPH TRXs7424	3148	111	44.8	1410	59	45	3	31.0	10.3
TRIUMPH TRXs7425HOCL	2898	102	42.9	1243	61	42	3	27.8	11.0
TRIUMPH TRXs7426HO	2932	104	43.2	1267	59	57	5	30.0	11.4
AVERAGES	2829	100	43.2	1223	58	64	10	29.1	11.7
CV(%)	12		--	--	1	3	52	3.0	--
LSD(0.05)*	477		--	--	1	3	7	1.2	--

* Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

2-Year Averages (2006 and 2007)

ADVANTA PACIFIC AP561NS	3192	120	41.4	1321	60	62	7	28.6	11.1
ADVANTA PACIFIC AP534NS/CL	2765	104	39.5	1092	59	64	10	26.8	12.5
CROPLAN GENETICS 3080DMR	2622	98	45.2	1186	56	56	12	27.9	10.0
CROPLAN GENETICS 356NS	2587	96	42.8	1113	58	56	9	28.3	12.2
CROPLAN GENETICS 378DMR,NS	2544	95	41.7	1060	58	63	9	27.3	13.1
DEKALB DKF37-31NS	2600	97	41.6	1083	58	55	7	27.5	14.3
DEKALB DKF38-45NS	2288	85	44.6	1024	56	60	12	28.4	13.4
FONTANELLE 902 NS	2699	101	45.0	1214	59	63	15	26.1	11.7
GARST 4420	2692	102	41.0	1103	60	62	7	28.2	11.3
GARST 4596 HO	2920	109	40.8	1189	57	61	10	30.9	12.9
GARST 4651 NS	2727	102	41.2	1121	58	62	10	27.5	13.6
MYCOGEN 8H419CL	3041	114	42.6	1294	58	61	8	27.4	10.5
MYCOGEN 8N453DM	3014	113	45.4	1368	57	60	9	30.3	11.4
MYCOGEN 8N386CL	2462	92	39.8	981	57	62	4	26.8	12.1
MYCOGEN 8N510	2856	107	43.4	1240	59	58	4	28.3	10.5
PIONEER 63M91	2728	102	42.8	1166	57	65	8	29.6	13.2
PIONEER 64H41	2484	93	40.7	1010	57	63	9	30.9	14.3
TRIUMPH 636	2655	100	44.3	1176	58	59	10	25.9	14.3
TRIUMPH 645	2583	97	45.9	1184	58	62	13	25.3	12.1
TRIUMPH 845HO	2466	92	45.3	1117	59	62	10	25.1	12.2
TRIUMPH s672	3022	113	45.9	1385	60	40	4	29.6	10.3
TRIUMPH s675	3119	117	46.7	1457	62	42	8	29.6	12.1
TRIUMPH s678	2978	111	44.2	1317	61	50	3	29.2	12.2
TRIUMPH TRXs5423	2973	112	45.4	1350	60	40	3	28.6	9.4
AVERAGES	2672	100	42.9	1148	58	58	9	27.9	11.8

Table 1. Colby Irrigated Oilseed Sunflower Performance Test, 2007, continued.

BRAND and HYBRID	Yield (lbs/a)	Yield as % of Test Average	Oil Content (%)	Oil Yield (lbs/a)	Days to Half Bloom	Plant Height (in.)	Lodging (%)	Test Weight (lbs/bu)	Seed Weight (g/200)
3-Year Averages (2005 to 2007)									
ADVANTA PACIFIC AP561NS	3293	121	41.2	1357	59	62	5	27.5	10.8
ADVANTA PACIFIC AP534NS/CL	2931	107	40.0	1175	58	65	7	26.1	12.0
CROPLAN GENETICS 3080DMR	2703	98	45.5	1230	55	56	9	27.2	9.6
CROPLAN GENETICS 378DMR,NS	2752	100	42.2	1164	57	64	6	26.2	12.5
FONTANELLE 902 NS	2913	106	45.0	1312	58	64	10	25.1	11.6
GARST 4596 HO	2953	108	41.6	1229	56	62	6	30.0	12.3
GARST 4651 NS	2708	99	41.7	1129	57	62	6	26.5	13.1
MYCOGEN 8H419CL	3068	112	42.3	1297	57	62	5	26.5	10.4
MYCOGEN 8N386CL	2731	99	40.5	1111	56	62	3	25.8	11.8
MYCOGEN 8N510	3145	114	42.6	1338	57	58	3	27.1	10.5
PIONEER 63M91	2904	106	43.3	1258	56	66	5	29.0	12.8
PIONEER 64H41	2685	97	41.4	1113	56	64	6	30.2	13.9
TRIUMPH 636	2907	106	44.1	1280	57	61	7	25.2	14.2
TRIUMPH 645	2729	100	45.9	1252	57	62	8	24.6	11.8
TRIUMPH s672	3011	110	45.4	1367	58	41	3	28.6	10.2
TRIUMPH s675	3037	111	46.2	1404	61	43	7	28.8	11.7
TRIUMPH s678	2873	105	44.4	1275	60	51	2	28.6	11.7
AVERAGES	2741	100	42.7	1172	57	59	6	27.1	11.6

NORTHWEST KANSAS FALLOW OILSEED SUNFLOWER TESTS

Northwest Research-Extension Center, Colby; Patrick Evans, agronomist
 Keith silt loam; Fallow in 2006; Target stand of 17,000 plants/acre
 Planted on 6/7/2007; Harvested on 9/27/2007; 40 - 15 - 0 lb/a N, P, K

Normal growing conditions throughout the growing season. Hot, dry conditions during flowering might have affected yields. Stem weevils and stalk rot contributed to the lodging.

Table 2. Colby Fallow Oilseed Sunflower Performance Test, 2007.

BRAND and HYBRID	Yield (lbs/a)	Yield as % of Test Average	Oil Content (%)	Oil Yield (lbs/a)	Days to Half Bloom	Plant Height (in.)	Lodging (%)	Test Weight (lbs/bu)	Seed Weight (g/200)
CROPLAN GENETICS 3080DMR	616	76	32.7	201	57	51	17	23.2	7.3
CROPLAN GENETICS 356NS	726	89	31.6	229	58	46	14	23.7	8.5
CROPLAN GENETICS 378DMR,NS	785	97	31.8	250	59	53	17	22.1	8.6
CROPLAN GENETICS 528CL NS	494	61	29.7	147	56	50	13	24.4	8.3
CROPLAN GENETICS 564CL NS	1224	151	37.1	454	60	53	6	24.8	7.7
CROPLAN GENETICS 584CL NS	1186	146	34.7	412	59	52	10	23.9	8.9
CROPLAN GENETICS 803DMR NS	831	102	34.1	283	57	50	16	23.3	8.1
DEKALB DKF34-33	628	77	31.2	196	59	51	24	21.7	8.5
DEKALB DKF34-80CL	704	87	33.3	234	57	47	17	24.4	8.6
DEKALB DKF37-31NS	971	120	31.9	310	59	47	3	23.5	10.1
DEKALB DKF38-45NS	854	105	33.7	288	57	50	10	24.5	9.0
DYNA-GRO SEEDS 94C38	814	100	34.4	280	58	51	24	22.7	8.2
DYNA-GRO SEEDS 94N82	586	72	35.9	210	59	52	14	23.9	8.2
DYNA-GRO SEEDS FXO7419	765	94	34.9	267	59	54	17	23.4	7.2
DYNA-GRO SEEDS FXO7519DM	628	77	32.6	205	58	48	18	23.8	7.3
FONTANELLE 902 NS	633	78	34.0	215	58	52	34	23.0	8.1
FONTANELLE IS4668	1159	143	34.9	404	59	51	13	24.1	9.1
FONTANELLE IS5880	653	80	32.8	214	58	49	8	25.2	7.9
GARST 4420	793	98	35.5	282	60	53	24	24.7	7.2
GARST 4596 HO	911	112	32.2	293	57	56	10	23.9	8.2
GARST 4651 NS	779	96	33.7	263	59	54	18	24.2	8.8
GARST XF07NS75	898	111	32.3	290	56	53	18	22.9	8.8
MONSANTO MH6638	656	81	33.6	220	57	50	40	24.2	8.0
MONSANTO MH6639	730	90	32.8	239	57	50	36	22.0	8.3
MONSANTO MH6640	405	50	33.3	135	58	50	47	25.5	8.3
MYCOGEN 8H449DM	775	95	33.0	256	57	51	11	26.4	8.6
MYCOGEN 8H419CL	695	86	34.1	237	59	53	7	23.5	7.4
MYCOGEN 8N337DM	899	111	35.4	318	55	52	15	23.6	9.2
MYCOGEN 8N453DM	856	105	34.8	298	58	51	9	22.5	8.8
MYCOGEN 8N386CL	827	102	33.7	279	57	52	7	24.2	8.2
MYCOGEN 8N510	996	123	33.6	335	58	47	6	22.8	7.1
PIONEER 63M91	568	70	31.7	180	57	53	17	25.6	8.7
PIONEER 64H41	911	112	33.2	302	58	52	13	24.1	10.8
SEEDS 2000 BARRACUDA	1091	134	37.7	411	60	52	6	26.2	8.2
SEEDS 2000 BLAZER	906	112	33.8	306	58	47	4	22.5	7.9
SEEDS 2000 SIERRA	1022	126	34.0	347	60	49	13	24.1	6.9
SEEDS 2000 X4744 NS-SU	844	104	35.1	296	60	51	2	22.7	7.6
TRIUMPH 660CL	758	93	37.6	285	60	53	10	23.9	7.9
TRIUMPH s672	1093	135	39.4	431	61	40	3	24.2	8.0
AVERAGES	812	100	33.9	277	58	50	15	23.8	8.3
CV(%)	31		--	--	2	5	51	9.3	--
LSD(0.05)*	351		--	--	1	3	11	3.1	--

* Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

2-Year Averages (2006 and 2007)

DEKALB DKF37-31NS	1274	115	33.8	435	60	48	2	24.3	9.3
DEKALB DKF38-45NS	1112	101	35.6	400	58	50	5	24.6	9.2
FONTANELLE 902 NS	1164	98	37.6	457	59	51	21	23.2	8.5
GARST 4420	1127	100	35.7	403	61	54	14	24.5	7.8
GARST 4596 HO	1174	106	34.3	408	58	53	7	24.8	8.1
GARST 4651 NS	1027	93	34.9	361	60	51	12	23.7	9.4

Table 2. Colby Fallow Oilseed Sunflower Performance Test, 2007, continued.

BRAND and HYBRID	Yield (lbs/a)	Yield as % of Test Average	Oil Content (%)	Oil Yield (lbs/a)	Days to Half Bloom	Plant Height (in.)	Lodging (%)	Test Weight (lbs/bu)	Seed Weight (g/200)
MYCOGEN 8H419CL	1019	90	36.1	374	59	52	4	23.9	8.3
MYCOGEN 8N453DM	1295	113	38.0	505	59	49	5	24.7	8.6
MYCOGEN 8N386CL	1139	102	35.5	410	58	52	4	24.5	8.3
MYCOGEN 8N510	1149	107	34.4	396	59	47	9	23.3	8.0
PIONEER 63M91	839	74	34.9	301	58	53	11	24.9	8.8
TRIUMPH 660CL	1203	104	37.3	446	61	52	6	24.0	9.7
TRIUMPH s672	1322	122	40.4	536	61	38	2	22.2	8.6
AVERAGES	1120	100	35.7	407	59	49	9	24.0	8.6

3-Year Averages (2005 to 2007)

FONTANELLE 902 NS	1353	99	37.5	520	58	49	14	22.9	8.0
GARST 4596 HO	1381	106	34.8	486	57	51	5	25.1	7.8
GARST 4651 NS	1288	97	35.1	455	58	49	9	23.2	8.9
MYCOGEN 8H419CL	1263	94	36.2	462	58	48	2	23.6	8.2
MYCOGEN 8N386CL	1374	104	36.4	507	57	49	3	24.0	8.4
MYCOGEN 8N510	1409	109	34.7	491	57	45	6	23.2	8.0
PIONEER 63M91	1154	84	36.0	428	57	51	8	24.8	8.7
TRIUMPH 660CL	1413	105	36.5	512	60	49	4	23.4	8.9
TRIUMPH s672	1481	116	40.0	593	59	35	1	23.4	8.2
AVERAGES	1318	100	35.9	478	57	47	7	23.9	8.4

WEST CENTRAL KANSAS OILSEED SUNFLOWER TESTS

Southwest Research-Extension Center, Tribune; Alan Schlegel, agronomist

Colby silt loam; corn in 2006; Target stand of 23,000 plants/acre

Planted on 6/8/2007; Harvested on 10/12/2007; 120 - 0 - 0 lb/a N, P, K

Table 3. Tribune Irrigated Oilseed Sunflower Performance Test, 2007.

BRAND and HYBRID	Yield (lbs/a)	Yield as % of Test Average	Oil Content (%)	Oil Yield (lbs/a)	Days to Half Bloom	Plant Height (in.)	Lodging (%)	Test Weight (lbs/bu)	Seed Weight (g/200)
ADVANTA PACIFIC AP561NS	2369	111	39.7	940	57	--	15	29.2	9.4
ADVANTA PACIFIC AP534NS/CL	2217	104	37.5	831	59	--	13	29.1	11.0
CROPLAN GENETICS 3080DMR	2089	98	43.7	913	57	--	17	31.0	8.8
CROPLAN GENETICS 356NS	2108	99	41.4	873	55	--	14	29.9	9.9
CROPLAN GENETICS 378DMR,NS	2255	106	41.1	927	60	--	40	31.6	10.6
CROPLAN GENETICS 528CL NS	2350	111	40.0	940	58	--	10	29.3	9.3
CROPLAN GENETICS 564CL NS	2406	113	41.6	1001	57	--	24	30.7	8.4
CROPLAN GENETICS 584CL NS	2115	99	38.4	812	58	--	12	29.5	10.4
CROPLAN GENETICS 803DMR NS	2060	97	42.3	871	56	--	16	27.1	8.5
DEKALB DKF34-33	2445	115	41.5	1015	57	--	16	30.5	9.7
DEKALB DKF34-80CL	2135	100	41.5	886	58	--	37	28.6	9.7
DEKALB DKF37-31NS	2291	108	42.0	962	56	--	19	28.2	11.6
DEKALB DKF38-45NS	2313	109	42.1	974	57	--	22	28.3	11.1
DYNA-GRO SEEDS 94C38	1612	76	38.6	622	57	--	15	30.0	10.3
DYNA-GRO SEEDS 94N82	2422	114	42.9	1039	57	--	14	31.2	9.9
DYNA-GRO SEEDS FX07419	1979	93	40.7	805	57	--	17	28.3	9.8
DYNA-GRO SEEDS FX07519DM	2065	97	41.0	847	57	--	23	29.6	9.7
FONTANELLE 902 NS	1906	90	43.2	823	57	--	18	29.1	11.1
FONTANELLE IS4668	2118	100	37.6	796	57	--	15	30.0	11.2
FONTANELLE IS5880	2128	100	38.4	817	56	--	13	29.6	9.9
GARST 4420	2127	100	40.8	868	58	--	22	29.5	9.1
GARST 4596 HO	2267	107	38.9	882	58	--	21	29.7	11.9
GARST XF07NS75	1880	88	39.4	741	59	--	14	28.7	10.2
MONSANTO MH6638	2187	103	41.8	914	57	--	11	28.7	9.0
MONSANTO MH6639	2143	101	42.6	913	57	--	13	30.6	9.3
MONSANTO MH6640	1745	82	41.6	726	58	--	12	29.6	9.3
MYCOGEN 8H449DM	2406	113	42.4	1020	57	--	10	30.9	11.2
MYCOGEN 8H419CL	2019	95	41.4	836	58	--	17	28.5	9.7
MYCOGEN 8N337DM	1993	94	42.9	855	56	--	16	29.3	10.4
MYCOGEN 8N453 DM	2388	112	43.8	1046	56	--	18	28.8	10.1
MYCOGEN 8N386CL	2099	99	38.2	802	55	--	17	29.5	11.1
MYCOGEN 8N510	2118	100	41.6	881	58	--	25	28.7	8.7
PIONEER 63M91	2066	97	40.5	837	57	--	14	29.2	11.2
PIONEER 64H41	1997	94	39.0	779	58	--	18	28.9	12.8
SEEDS 2000 BLAZER	2176	102	43.2	940	56	--	11	29.5	9.2
SEEDS 2000 SIERRA	2197	103	40.6	892	57	--	8	29.9	8.7
TRIUMPH 645	2158	101	45.8	988	57	--	17	29.2	9.9
TRIUMPH 660CL	1769	83	41.5	734	57	--	20	28.7	9.4
TRIUMPH 845HO	2159	102	43.8	946	57	--	38	30.0	10.5
TRIUMPH R657	2333	110	43.8	1022	56	--	16	29.8	12.4
TRIUMPH R664	1971	93	45.2	891	58	--	16	28.5	9.4
TRIUMPH R859HOCL	2233	105	41.2	920	56	--	19	28.4	8.2
TRIUMPH s672	2167	102	44.3	960	57	--	25	28.8	8.7
TRIUMPH TRX7434HOCL	2027	95	41.1	833	55	--	13	31.1	8.2
TRIUMPH TRX7442	1696	80	42.2	716	59	--	19	28.5	11.3
AVERAGES	2127	100	41.4	881	57	--	18	29.4	10.0
CV(%)	18		--	--	3	--	54	6.2	--
LSD(0.05)*	538		--	--	2	--	13	2.5	--

* Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

Table 3. Tribune Irrigated Oilseed Sunflower Performance Test, 2007, continued.

BRAND and HYBRID	Yield (lbs/a)	Yield as % of Test Average	Oil Content (%)	Oil Yield (lbs/a)	Days to Half Bloom	Plant Height (in.)	Lodging (%)	Test Weight (lbs/bu)	Seed Weight (g/200)
2-Year Averages (2006 and 2007)									
ADVANTA PACIFIC AP561NS	2248	112	39.5	888	57	77	8	29.5	10.5
ADVANTA PACIFIC AP534NS/CL	1858	92	39.3	724	58	73	7	29.4	11.5
CROPLAN GENETICS 3080DMR	2190	110	44.1	965	56	70	9	30.7	9.5
CROPLAN GENETICS 356NS	2043	102	41.6	849	56	63	9	29.3	11.8
CROPLAN GENETICS 378DMR,NS	2205	110	41.4	912	58	74	21	30.4	11.8
DEKALB DKF37-31NS	2089	104	42.5	887	56	62	11	28.5	11.9
DEKALB DKF38-45NS	2087	103	42.8	891	56	65	13	28.5	11.4
FONTANELLE 902 NS	1701	84	44.0	746	57	72	9	28.7	11.5
GARST 4420	2074	103	41.1	852	58	75	13	29.5	10.5
GARST 4596 HO	2293	115	39.8	913	57	72	17	29.6	12.3
MYCOGEN 8H419CL	2125	106	41.9	891	58	72	9	29.2	10.2
MYCOGEN 8N453DM	2105	104	44.5	934	56	69	11	28.7	10.7
MYCOGEN 8N386CL	2129	106	39.1	833	56	73	11	29.5	12.1
MYCOGEN 8N510	1833	91	41.9	767	57	70	14	28.7	9.9
PIONEER 63M91	2006	100	41.7	835	56	73	9	29.1	12.0
PIONEER 64H41	2181	109	40.3	880	57	68	10	29.4	13.8
SEEDS 2000 BLAZER	1890	93	43.0	813	56	65	7	29.1	9.7
SEEDS 2000 SIERRA	1947	96	40.6	789	58	66	6	29.5	10.0
TRIUMPH 645	2164	108	45.4	982	58	75	10	29.3	11.1
TRIUMPH 660CL	2021	102	42.7	866	58	75	11	29.5	10.2
TRIUMPH 845HO	1815	90	43.9	795	58	74	21	29.4	11.8
TRIUMPH s672	2220	111	44.6	990	57	54	14	29.0	9.6
AVERAGES	2010	100	41.9	842	57	69	10	29.2	11.0
3-Year Averages (2005 to 2007)									
CROPLAN GENETICS 378DMR,NS	2207	107	41.5	916	59	75	20	29.4	11.3
MYCOGEN 8H419CL	2076	101	41.5	862	57	73	7	28.0	10.2
MYCOGEN 8N386CL	2200	107	39.7	875	56	73	10	28.3	11.3
MYCOGEN 8N510	2070	100	41.6	859	58	70	12	27.9	9.5
PIONEER 63M91	1984	97	41.9	830	57	74	9	28.3	11.7
PIONEER 64H41	2278	111	40.2	918	57	71	8	29.2	13.5
SEEDS 2000 BLAZER	2069	100	42.5	879	57	67	6	27.7	9.6
SEEDS 2000 SIERRA	2025	98	40.3	816	60	71	11	27.2	9.5
TRIUMPH 645	2275	110	45.4	1033	59	76	9	27.7	11.0
TRIUMPH 660CL	1976	97	42.3	839	59	76	15	27.7	9.9
TRIUMPH s672	2170	106	44.8	973	58	55	10	28.5	9.4
AVERAGES	2061	100	41.5	856	57	70	9	28.1	10.8

WEST CENTRAL KANSAS OILSEED SUNFLOWER TESTS

Southwest Research-Extension Center, Tribune; Alan Schlegel, agronomist

Richfield silt loam; Wheat in 2006

100 - 31 - 0 lb/a N, P, K

Planted on 6/21/2007; Harvested on 11/2/2007

Target stand of 17,400 plants/acre; 12.0 in. spacing

Drier than normal at planting. Test was replanted due to poor stands. Stem borer caused considerable lodging.

Month	Precipitation		Average Temp.	
	2007	Norm.	2007	Norm.
Nov.-Mar	6.6	2.1	33	34
April	3.3	1.3	47	49
May	1.1	2.3	61	60
June	1.4	2.6	70	70
July	0.5	2.5	77	77
August	3.3	2.2	79	74
Sept.	0.7	1.3	70	66
Oct.	0.1	0.7	57	54
Totals:	17.1	15.0	52	52

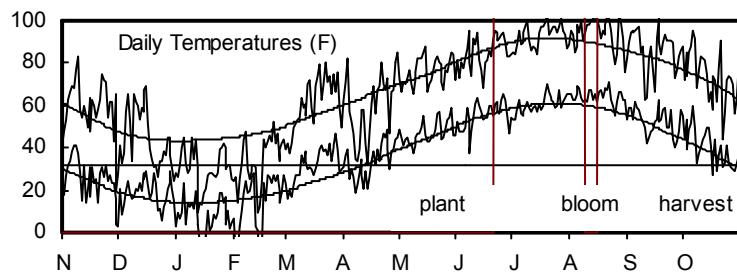
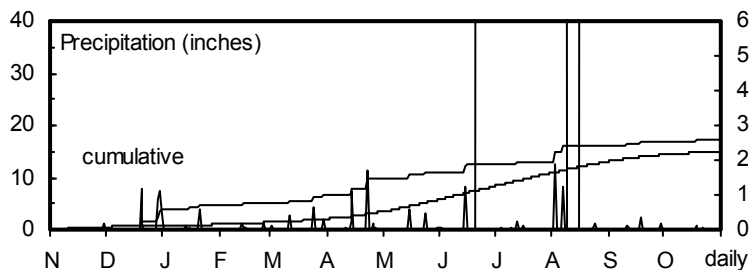


Table 4. Tribune Dryland Oilseed Sunflower Performance Test, 2007.

BRAND and HYBRID	Yield (lbs/a)	Yield as % of Test Average	Oil Content (%)	Oil Yield (lbs/a)	Days to Half Bloom	Plant Height (in.)	Lodging (%)	Test Weight (lbs/bu)	Seed Weight (g/200)
CROPLAN GENETICS 3080DMR	789	79	35.9	283	50	57	17	27.2	6.5
CROPLAN GENETICS 356NS	977	98	36.5	357	52	55	20	28.3	8.9
CROPLAN GENETICS 378DMR,NS	865	87	36.0	311	52	65	15	28.6	7.5
CROPLAN GENETICS 528CL NS	882	89	35.3	311	49	60	14	28.0	7.8
CROPLAN GENETICS 564CL NS	1290	130	37.7	486	54	69	22	29.9	7.2
CROPLAN GENETICS 584CL NS	1036	104	35.8	371	53	63	13	29.1	8.9
CROPLAN GENETICS 803DMR NS	933	94	36.8	343	49	54	22	29.3	7.0
DEKALB DKF34-33	901	90	37.7	340	50	62	16	28.1	8.5
DEKALB DKF34-80CL	1300	131	38.4	499	50	59	27	29.1	9.3
DEKALB DKF37-31NS	1162	117	36.0	418	50	55	13	28.5	9.8
DEKALB DKF38-45NS	798	80	36.9	294	49	57	16	27.6	9.2
DYNA-GRO SEEDS 94C38	1052	106	37.1	390	53	63	15	29.1	7.3
DYNA-GRO SEEDS 94N82	1036	104	38.6	400	53	63	13	29.3	7.3
DYNA-GRO SEEDS FX07419	1036	104	38.1	395	55	71	22	28.9	7.5
DYNA-GRO SEEDS FX07519DM	925	93	37.0	342	52	59	15	28.4	6.8
FONTANELLE 902 NS	1154	116	38.1	440	53	64	13	27.6	7.7
FONTANELLE IS4668	814	82	36.0	293	54	63	11	27.2	7.7
FONTANELLE IS5880	815	82	34.6	282	52	68	21	26.4	7.8
GARST 4420	756	76	34.6	262	55	69	14	28.1	6.2
MONSANTO MH6638	1077	108	39.6	426	53	64	16	28.6	8.3
MONSANTO MH6639	958	96	37.4	358	53	61	14	28.5	8.1
MONSANTO MH6640	850	85	37.1	315	52	61	11	28.7	7.2
MYCOGEN 8H449DM	875	88	37.6	329	52	58	14	28.3	8.0
MYCOGEN 8H419CL	1215	122	39.1	475	52	67	14	28.7	8.0
MYCOGEN 8N337DM	1214	122	41.1	499	52	65	18	28.8	9.5
MYCOGEN 8N453DM	909	91	40.0	364	51	62	13	29.8	8.3
MYCOGEN 8N386CL	925	93	36.4	337	51	66	21	29.2	8.2
MYCOGEN 8N510	1094	110	37.0	405	52	61	15	28.4	7.2
PIONEER 63M91	977	98	34.9	341	50	58	9	28.3	7.3
PIONEER 64H41	1291	130	34.5	445	53	58	11	27.5	8.5
SEEDS 2000 BARRACUDA	1079	108	38.3	413	53	62	19	30.1	7.7
SEEDS 2000 BLAZER	1129	113	38.0	429	52	55	34	29.4	8.1
SEEDS 2000 SIERRA	620	62	33.9	210	54	63	11	27.8	6.2

Table 4. Tribune Dryland Oilseed Sunflower Performance Test, 2007, continued.

BRAND and HYBRID	Yield (lbs/a)	Yield as % of Test Average	Oil Content (%)	Oil Yield (lbs/a)	Days to Half Bloom	Plant Height (in.)	Lodging (%)	Test Weight (lbs/bu)	Seed Weight (g/200)
SEEDS 2000 X4744 NS-SU	849	85	34.6	294	53	64	18	30.0	6.5
TRIUMPH 845HO	892	90	40.7	363	53	65	17	29.5	9.8
TRIUMPH R664	1232	124	38.3	472	54	69	17	28.9	7.7
TRIUMPH R859HOCL	985	99	37.5	369	55	65	14	28.5	6.4
TRIUMPH s672	1181	119	41.5	490	51	48	15	29.6	6.7
AVERAGES	997	100	37.2	372	52	62	16	28.6	7.8
CV(%)	34		--	--	4	8	64	6.4	--
LSD(0.05)*	476		--	--	3	7	15	2.6	--

* Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

NORTH CENTRAL KANSAS DRYLAND OILSEED SUNFLOWER TEST

Agricultural Research Center, Hays; Ken Kofoid, agronomist

Harney silt loam; Fallow in 2006

60 - 0 - 0 lb/a N, P, K

Planted on 6/8/2007; Harvested on 10/16/2007

Target stand of 17,400 plants/acre; 12.0 in. spacing

Growth conditions were good all summer. Lodging became evident with the onset of hot, dry weather in August.

Month	Precipitation		Average Temp.	
	2007	Norm.	2007	Norm.
Nov.-Mar	10.5	3.5	37	33
April	1.8	1.8	51	51
May	5.4	3.1	66	62
June	2.6	3.8	72	72
July	6.0	3.4	78	78
August	2.6	2.8	83	76
Sept.	2.4	2.2	71	68
Oct.	2.3	1.4	58	55
Totals:	33.6	22.0	55	52

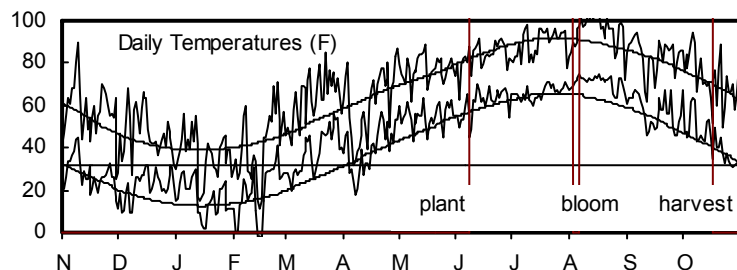
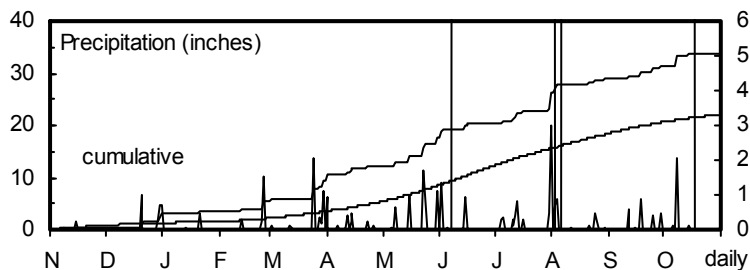


Table 5. Hays Dryland Oilseed Sunflower Performance Test, 2007.

BRAND and HYBRID	Yield (lbs/a)	Yield as % of Test Average	Oil Content (%)	Oil Yield (lbs/a)	Days to Half Bloom	Plant Height (in.)	Lodging (%)	Test Weight (lbs/bu)	Seed Weight (g/200)
CROPLAN GENETICS 3080DMR	536	97	37.6	202	56	53	33	19.4	10.1
CROPLAN GENETICS 356NS	561	102	31.9	179	58	50	19	21.9	12.6
CROPLAN GENETICS 378DMR,NS	417	76	32.0	133	59	56	18	18.2	11.8
CROPLAN GENETICS 528CL NS	406	74	34.1	138	55	54	17	23.9	11.8
CROPLAN GENETICS 564CL NS	402	73	33.1	133	59	59	29	20.6	9.1
CROPLAN GENETICS 584CL NS	672	122	31.1	209	58	62	28	19.7	10.9
CROPLAN GENETICS 803DMR NS	440	80	36.3	160	56	58	35	22.6	9.8
DEKALB DKF34-33	425	77	34.5	147	58	56	35	22.4	11.2
DEKALB DKF34-80CL	654	119	33.2	217	58	52	22	24.0	11.5
DEKALB DKF37-31NS	698	127	32.7	228	58	49	26	21.8	12.4
DEKALB DKF38-45NS	400	73	34.9	140	58	54	30	20.6	12.0
DYNA-GRO SEEDS 94C38	465	85	29.5	137	59	59	35	19.3	10.6
DYNA-GRO SEEDS 94N82	392	71	34.1	134	59	56	15	18.8	11.7
DYNA-GRO SEEDS FXO7419	706	128	33.3	235	59	66	19	17.2	10.1
DYNA-GRO SEEDS FXO7519DM	426	77	32.2	137	59	55	21	19.3	11.6
FONTANELLE 902 NS	591	107	34.8	206	57	58	31	21.1	9.7
FONTANELLE IS4668	697	127	30.4	212	59	60	24	20.9	10.4
FONTANELLE IS5880	724	132	31.7	230	59	55	28	21.1	9.4
MONSANTO MH6638	757	138	34.8	263	58	57	30	24.7	11.2
MONSANTO MH6639	708	129	33.2	235	58	49	16	23.0	13.1
MONSANTO MH6640	553	101	34.0	188	57	54	31	22.6	10.5
PIONEER 63M91	501	91	35.1	176	58	63	29	24.7	12.0
PIONEER 64H41	583	106	34.0	198	57	64	25	24.1	14.2
TRIUMPH R664	604	110	33.5	202	59	65	22	19.8	10.3
TRIUMPH s672	428	78	33.8	145	59	40	15	20.1	10.1
AVERAGES	550	100	33.4	183	58	56	25	21.3	11.1
CV(%)	37	--	--	--	2	6	43	16.2	--
LSD(0.05)*	285	--	--	--	2	5	15	4.9	--

* Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

SOUTH CENTRAL KANSAS DRYLAND OILSEED SUNFLOWER TEST

South Central Kansas Experiment Field, Hutchinson; William Heer, agronomist

Ost silt loam; Fallow in 2006

100 - 0 - 0 lb/a N, P, K

Planted on 6/7/2007; Harvested on 10/23/2007

Target stand of 22,000 plants/acre; 9.5 in. spacing

Severe lodging affected yields.

Month	Precipitation		Average Temp.	
	2007	Norm.	2007	Norm.
Nov.-Mar	9.2	4.2	38	37
April	2.9	2.7	50	56
May	10.4	4.0	66	65
June	7.3	4.2	73	75
July	0.9	3.4	78	81
August	1.7	3.1	83	79
Sept.	2.6	3.3	70	70
Oct.	3.2	2.5	59	59
Totals:	38.2	27.4	56	56

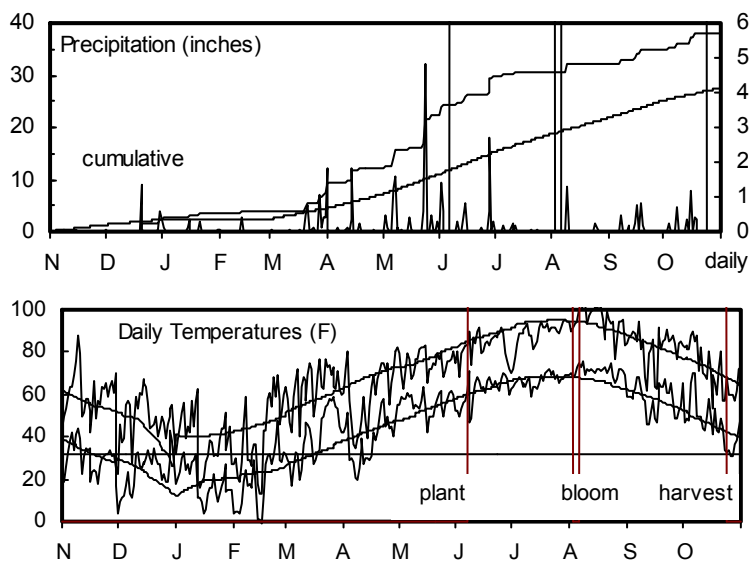


Table 6. Hutchinson Dryland Oilseed Sunflower Performance Test, 2007.

BRAND and HYBRID	Yield (lbs/a)	Yield as % of Test Average	Oil Content (%)	Oil Yield (lbs/a)	Days to Half Bloom	Plant Height (in.)	Lodging (%)	Test Weight (lbs/bu)	Seed Weight (g/200)
DYNA-GRO SEEDS 94C38	260	87	41.9	109	57	61	29	29.3	7.5
DYNA-GRO SEEDS 94N82	308	103	40.4	124	59	65	45	29.7	6.4
DYNA-GRO SEEDS FXO7419	284	95	42.4	120	60	60	42	30.3	7.8
DYNA-GRO SEEDS FXO7519DM	290	97	42.8	124	58	62	49	29.6	7.9
FONTANELLE 902 NS	212	71	42.9	91	59	63	29	30.0	8.0
FONTANELLE IS4668	259	87	41.6	108	58	64	21	29.4	8.4
FONTANELLE IS5880	347	116	42.0	146	56	62	21	30.9	8.3
PIONEER 63M91	463	155	41.4	192	57	64	13	30.6	8.4
PIONEER 64H41	281	94	41.9	118	58	64	39	31.4	7.6
TRIUMPH R657	296	99	42.4	126	59	62	40	29.3	8.4
TRIUMPH s672	331	111	41.8	138	59	42	24	29.9	7.6
TRIUMPH s678	260	87	40.3	105	60	47	39	29.3	8.3
AVERAGES	299	100	41.8	125	58	59	33	30.0	7.9
CV(%)	40	--	--	--	3	3	106	4.4	--
LSD(0.05)*	172	--	--	--	3	3	50	1.9	--

* Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

NORTHWEST KANSAS CONFECTIONARY SUNFLOWER TESTS

Northwest Research-Extension Center, Colby; Patrick Evans, agronomist

Normal growing conditions throughout the growing season. Stalk rot and stem weevil caused some lodging.

Keith silt loam; corn in 2006; Target stand of 17,000 plants/acre

Planted on 6/7/2007; Harvested on 10/7/2006; 60 - 30 - 0 lb/a N, P, K

Table 7. Colby Irrigated Confectionary Sunflower Performance Test, 2007.

BRAND and HYBRID	Yield (lb/a)	Yield % of Avg	Days			Planting (%)	Test Wt. (lb/bu)	Seed Wt. (g/200)	Seed Size Distribution (%)						
			to Half Blm	Plant Ht. (in.)	Lodging (%)				Above 22/64	21/64 to 22/64	20/64 to 21/64	19/64 to 20/64	18/64 to 19/64	16/64 to 18/64	Below 16/64
ADVANTA PACIFIC F39018 CF	2254	104	55	60	9	20.6	26.7	22.0	14.0	17.0	15.0	12.0	16.0	4.0	
CHS INC. 06EXP02	1943	89	56	67	16	19.6	32.5	60.0	15.0	11.0	7.0	2.0	4.0	1.0	
CHS INC. 07EXP01	1738	80	58	63	7	20.0	29.6	39.0	18.0	13.0	12.0	6.0	9.0	3.0	
CHS INC. RH1121	2502	115	60	67	12	19.9	28.6	70.0	11.0	6.0	6.0	3.0	2.0	2.0	
CHS INC. RH1122	2007	92	56	65	18	18.7	29.0	65.0	13.0	7.0	6.0	3.0	4.0	2.0	
CHS INC. RH316	2167	100	55	63	10	19.3	32.9	33.0	21.0	16.0	14.0	8.0	7.0	1.0	
DAHLGREN D-9530	2107	97	57	65	23	15.7	26.3	44.0	19.0	13.0	13.0	5.0	5.0	1.0	
DAHLGREN D-9541	2159	99	58	67	4	18.6	31.5	36.0	23.0	18.0	11.0	7.0	4.0	1.0	
DAHLGREN D-9569	2372	109	58	67	15	19.5	25.3	29.0	16.0	16.0	13.0	11.0	11.0	4.0	
DAHLGREN D-9579	2279	105	58	64	15	17.0	30.3	40.0	21.0	15.0	12.0	5.0	5.0	2.0	
RED R. COMMODITIES 2215	2204	101	58	66	20	20.1	27.1	45.0	20.0	12.0	11.0	6.0	5.0	1.0	
RED R. COMMODITIES 2216	2385	110	58	67	18	20.2	26.1	32.0	24.0	16.0	14.0	6.0	6.0	2.0	
RED R. COMMODITIES 7015	2192	101	58	66	13	18.8	26.5	34.0	16.0	15.0	13.0	7.0	10.0	5.0	
SEEDS 2000 Panther	2248	103	55	60	15	21.0	26.8	36.0	17.0	15.0	11.0	6.0	11.0	4.0	
SEEDS 2000 Panther DMR	1989	91	54	62	21	22.0	27.3	26.0	14.0	15.0	21.0	12.0	11.0	2.0	
SUN OPTA GOLIATH RT	2148	99	58	65	12	22.1	25.0	26.0	21.0	14.0	12.0	10.0	11.0	6.0	
TRIUMPH 767C	2309	106	57	66	21	18.9	27.2	41.0	18.0	14.0	12.0	6.0	7.0	2.0	
TRIUMPH 777C	2145	99	59	69	23	18.6	27.8	56.0	17.0	10.0	7.0	6.0	3.0	1.0	
TRIUMPH TRX7352C	2226	102	59	66	16	18.8	28.5	44.0	18.0	14.0	11.0	6.0	5.0	2.0	
AVERAGES	2178	100	57	65	15	19.4	28.0	40.9	17.7	13.5	11.6	6.7	7.2	2.4	
CV(%)	17	0	1	3	48	13.2	0.0								
LSD(0.05)*	520	0	1	3	10	3.6	0.0								

* Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

2-Year Averages (2006 and 2007)

CHS INC. RH1122	1831	94	58	60	9	18.3	29.9	65.3	13.4	7.4	6.3	3.4	3.3	1.4
CHS INC. RH316	2098	109	56	59	5	18.7	32.9	30.2	26.7	18.5	13.0	6.3	4.7	0.8
DAHLGREN D-9530	1839	94	60	62	12	17.1	29.1	47.5	19.5	12.8	11.1	4.3	4.3	1.0
DAHLGREN D-9541	1973	102	59	64	3	18.5	32.0	29.8	25.0	19.7	15.4	6.2	3.1	1.0
DAHLGREN D-9569	2028	104	60	62	8	18.9	28.4	35.8	19.2	15.5	11.1	8.2	7.6	3.1
RED R. COMMODITIES 2215	2124	110	60	63	11	19.1	27.3	45.4	22.5	13.8	10.0	4.2	3.4	0.9
RED R. COMMODITIES 2216	2015	103	61	65	10	19.5	26.9	37.9	24.8	15.8	11.4	4.7	4.1	1.4
RED R. COMMODITIES 7015	1955	101	60	62	8	18.6	27.7	34.3	21.4	15.8	11.9	6.2	7.5	3.3
SUN OPTA GOLIATH RT	2040	106	60	61	7	21.2	26.7	25.9	23.5	15.7	13.1	8.7	9.2	3.4
TRIUMPH 767C	2072	107	59	61	15	19.3	27.8	45.1	16.8	12.0	10.7	6.1	7.1	1.9
TRIUMPH 777C	1987	103	61	66	13	18.5	28.0	59.0	16.9	9.6	6.9	4.3	2.3	0.7
AVERAGES	1942	100	58	61	9	18.8	28.8	43.3	19.0	13.8	11.0	5.7	5.4	1.7

3-Year Averages (2005 to 2007)

DAHLGREN D-9530	1953	98	59	62	9	16.9	27.9	53.3	18.6	11.2	9.2	3.5	3.5	0.9
RED R. COMMODITIES 2215	2187	111	59	63	8	18.3	26.6	48.2	22.1	13.8	8.5	3.5	3.2	0.7
RED R. COMMODITIES 2216	2157	108	59	66	7	18.5	26.4	44.0	23.2	14.1	9.9	4.5	3.1	1.1
RED R. COMMODITIES 7015	1949	98	59	63	6	18.1	27.1	37.3	23.3	15.7	10.5	4.9	5.7	2.7
SUN OPTA GOLIATH RT	2102	106	59	61	4	19.9	26.8	33.5	23.0	14.5	11.0	7.0	7.7	3.0
TRIUMPH 767C	1963	99	58	61	11	18.3	28.8	55.6	15.4	9.8	7.8	4.4	5.2	1.5
TRIUMPH 777C	2136	108	60	66	9	17.3	27.7	64.1	16.1	8.4	5.3	3.2	1.9	0.7
AVERAGES	1987	100	57	61	7	17.8	28.0	48.8	18.4	12.6	9.5	4.8	4.5	1.5

WEST CENTRAL KANSAS CONFECTIONARY SUNFLOWER TESTS

Southwest Research-Extension Center, Tribune; Alan Schlegel, agronomist

Colby silt loam; corn in 2006; Target stand of 17,400 plants/acre

Planted on 6/8/2007; Harvested on 10/12/2007; 120 - 0 - 0 lb/a N, P, K

Table 8. Tribune Irrigated Confectionary Sunflower Performance Test, 2007.

BRAND and HYBRID	Yield (lb/a)	Yield % of Avg	Days to Half Blm	Plant Ht. (in.)	Lodging (%)	Test Wt. (lb/bu)	Seed Wt. (g/200)	Seed Size Distribution (%)						
								Above 22/64	21/64 to 22/64	20/64 to 21/64	19/64 to 20/64	18/64 to 19/64	16/64 to 18/64	Below 16/64
ADVANTA PACIFIC F39018 CF	958	78	57	--	36	22.0	19.3	1.2	3.3	6.1	16.8	17.3	35.0	20.3
CHS INC. 06EXP02	980	80	57	--	31	20.5	23.1	8.9	14.9	17.9	25.8	16.1	13.2	3.2
CHS INC. 07EXP01	1456	120	57	--	29	22.3	27.6	4.7	10.6	16.3	23.8	14.8	20.1	9.7
CHS INC. RH1121	1197	98	59	--	19	21.8	23.7	25.6	13.6	15.4	16.0	11.5	12.9	5.0
CHS INC. RH1122	1028	84	56	--	34	22.9	24.1	29.3	15.2	13.1	16.7	7.0	13.5	5.2
CHS INC. RH316	1292	106	55	--	19	21.7	26.2	2.0	4.4	11.3	21.2	20.5	31.5	9.1
DAHLGREN D-9530	1261	103	58	--	34	22.2	20.5	2.3	5.9	12.4	19.4	18.8	31.8	9.4
DAHLGREN D-9541	1156	94	59	--	15	20.7	22.5	1.2	3.0	12.6	23.6	23.7	26.4	9.5
DAHLGREN D-9569	1335	109	58	--	27	20.9	22.1	2.7	6.8	13.4	19.9	21.2	25.8	10.2
DAHLGREN D-9579	1243	102	58	--	37	19.1	25.7	9.6	9.4	17.2	22.3	16.4	18.5	6.6
RED R. COMMODITIES 2215	1335	109	58	--	20	22.7	21.7	3.8	9.1	11.8	26.6	20.0	25.6	3.1
RED R. COMMODITIES 2216	1099	90	58	--	40	22.5	20.1	5.4	4.7	12.2	17.1	18.5	33.2	8.9
RED R. COMMODITIES 7015	1063	87	58	--	15	22.7	23.3	5.8	6.3	10.9	23.3	17.2	26.2	10.3
SUN OPTA GOLIATH RT	1459	119	58	--	16	24.8	22.3	4.6	5.2	13.6	18.9	18.1	28.3	11.3
TRIUMPH 767C	1478	121	58	--	44	22.4	23.5	8.1	12.7	16.7	19.5	14.7	18.9	9.4
TRIUMPH 777C	1156	94	61	--	46	21.8	21.2	9.9	13.3	18.6	24.3	14.2	14.1	5.6
TRIUMPH TRX7352C	1315	107	59	--	52	19.6	22.6	7.3	10.9	17.7	22.7	17.8	16.9	6.7
AVERAGES	1225	100	58	70	30	21.8	22.9	7.8	8.8	13.9	21.0	16.9	23.1	8.6
CV(%)	13	0	2	--	36	6.6	0.0							
LSD(0.05)*	220	0	1	--	15	2.0	0.0							

* Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

2-Year Averages (2006 and 2007)

CHS INC. RH1122	1274	103	57	72	20	21.3	28.0	47.4	14.4	9.6	11.3	6.0	8.4	3.2
CHS INC. RH316	1185	96	56	74	12	20.7	27.6	11.2	14.2	16.5	20.0	14.0	19.5	4.9
DAHLGREN D-9530	1277	103	57	75	20	21.2	22.9	13.4	15.1	17.8	17.2	12.9	18.6	5.2
DAHLGREN D-9541	1206	98	58	83	10	19.5	24.4	4.9	10.3	17.5	25.9	19.3	17.1	5.3
DAHLGREN D-9569	1109	90	57	74	16	17.4	24.4	18.5	13.6	15.3	16.8	14.0	15.9	6.2
TRIUMPH 767C	1354	110	57	75	25	20.4	24.9	19.2	16.2	16.0	16.5	10.9	15.0	6.4
AVERAGES	1234	100	57	73	17	20.2	25.0	19.8	14.2	15.6	18.5	12.2	14.8	5.0

3-Year Averages (2005 to 2007)

DAHLGREN D-9530	1346	104	58	75	16	19.9	22.9	19.9	19.0	17.7	15.9	10.5	13.3	3.7
TRIUMPH 767C	1386	107	58	74	22	19.6	24.9	27.0	18.3	16.3	14.6	8.5	10.8	4.6
AVERAGES	1297	100	58	74	16	19.1	24.5	27.7	15.7	15.4	16.4	10.0	11.3	3.6

WEST CENTRAL KANSAS CONFECTIONARY SUNFLOWER TESTS

Southwest Research-Extension Center, Tribune; Alan Schlegel, agronomist

Richfield silt loam; Wheat in 2006; Target stand of 17,400 plants/acre

Planted on 6/21/2007; Harvested on 11/2/2007; 100 - 31 - 0 lb/a N, P, K

Drier than normal at planting. Test was replanted due to poor stands. Stem borer caused considerable lodging

Table 9. Tribune Dryland Confectionary Sunflower Performance Test, 2007.

BRAND and HYBRID	Yield		Days			Lodg- ing (%)	Test Wt. (lb/bu)	Seed Wt. (g/200)	Seed Size Distribution (%)					
	(lb/a)	% of Avg	to Half Blm	Plant Ht. (in.)	Above 22/64				21/64 to 22/64	20/64 to 21/64	19/64 to 20/64	18/64 to 19/64	16/64 to 18/64	Below 16/64
DAHLGREN D-9530	538	99	53	70	16	21.1	19.8	19.0	14.9	15.6	16.6	13.4	15.5	4.9
DAHLGREN D-9541	403	74	53	71	15	20.3	22.6	34.4	13.5	12.6	13.0	8.7	12.5	5.2
DAHLGREN D-9569	605	111	53	75	12	19.0	19.5	11.1	15.0	15.6	20.2	10.2	18.4	9.6
DAHLGREN D-9579	437	80	53	71	33	18.6	19.2	25.9	13.4	14.0	16.4	9.1	13.1	8.0
SUN OPTA GOLIATH RT	739	136	53	73	9	22.2	19.4	7.9	8.1	13.9	19.6	13.2	24.5	12.6
AVERAGES	545	100	53	72	17	20.2	20.1	19.7	13.0	14.3	17.2	10.9	16.8	8.1
CV(%)	21		1	6	71	6.5								
LSD(0.05)*	173		1	6	19	2.0								

* Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

Table 10. Entrants and Entries in 2007 Sunflower Performance Tests.

<p>ADVANTA PACIFIC Advanta Pacific LLC 1215 Prairie Parkway West Fargo, ND 58078 701-373-8115</p> <p>AP561NS AP534NS/CL F39018 CF F41269 DM3 F51132NS/CL/DM F51311 NSDM</p> <p>CHS INC. CHS Sunflowers 220 Clement Avenue Grandin, ND 58038 701-484-5313</p> <p>06EXP02 07EXP01 RH1121 RH1122 RH316</p> <p>CROPLAN GENETICS Croplan Genetics PO Box 1291 Minot, ND 58078 701-852-2556</p> <p>3080DMR 356NS 378DMR,NS 528CL NS 564CL NS 584CL NS 803DMR NS</p> <p>DAHLGREN Dahlgren 1220 Sunflower St. Crookston, MN 56716 218-281-2985</p> <p>D-9530 D-9541 D-9569 D-9579</p>	<p>DEKALB Monsanto Seed 4312 Carol Avenue Cortland, IL 60112 815-754-4809</p> <p>DKF34-33 DKF34-80CL DKF37-31NS DKF38-45NS</p> <p>DYNA-GRO SEEDS Dyna-Gro Seeds PO Box 636 Garden City, KS 67846 620-275-4271</p> <p>94C38 94N82 FXO7419 FXO7519DM</p> <p>FONTANELLE Fontanelle Hybrid 10981 8th Street Fontanelle, NE 68044 402-721-1410</p> <p>902 NS IS4668 IS5880</p> <p>GARST Garst Seed Co. 2369 330th St. Slater, IA 50244 888-464-2778</p> <p>4420 4596 HO 4651 NS XF07NS75</p> <p>MONSANTO Monsanto Seed 4312 Carol Avenue Cortland, IL 60112 815-754-4809</p> <p>MH6638 MH6639 MH6640</p>	<p>MYCOGEN Mycogen Seed 406 18th Ave. N. Whapeton, ND 58075 701-642-6007</p> <p>8H449DM 8H419CL 8N337DM 8N453DM 8N386CL 8N510</p> <p>PIONEER Pioneer Hi-Bred Intl., Inc. 390 Union Blvd. Suite 500A Lakewood, CO 80228 800-258-5604</p> <p>63M91 64H41</p> <p>RED R. COMMODITIES Red River Commodities 1320 East College Drive Colby, KS 67701 785-462-3911</p> <p>2215 2216 7015</p> <p>SEEDS 2000 Seeds 2000 Box 200 Breckenridge, MN 56520 218-643-2410</p> <p>BARRACUDA BLAZER Panther Panther DMR SIERRA X4744 NS-SU</p> <p>SUN OPTA Sun Opta 1701 Industrial Loop Goodland, KS 67735 785-899-5607</p> <p>GOLIATH RT</p>	<p>TRIUMPH Triumph Seed Co., Inc. PO Box 1050 Ralls, TX 79357 800-530-4789</p> <p>636 645 660CL 767C 777C 845HO R657 R664 R859HOCL s672 s675 s678 TRX7352C TRX7434HOCL TRX7442 TRX7449 TRXs5423 TRXs7424 TRXs7425HOCL TRXs7426HO</p>
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The URL is <http://kscroptests.agron.ksu.edu>

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Permission is hereby given to Kansas State University to test varieties and/or hybrids designated on the attached entry forms in the manner indicated in the test announcements. I certify that seed submitted for testing is a true sample of the seed being offered for sale.

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**This Report of Progress was edited and designed
by the Department of Communications at Kansas State University**

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

SRP 989

December 2007

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