

2008

Kansas Performance Tests with Sunflower Hybrids

Report of Progress 1006

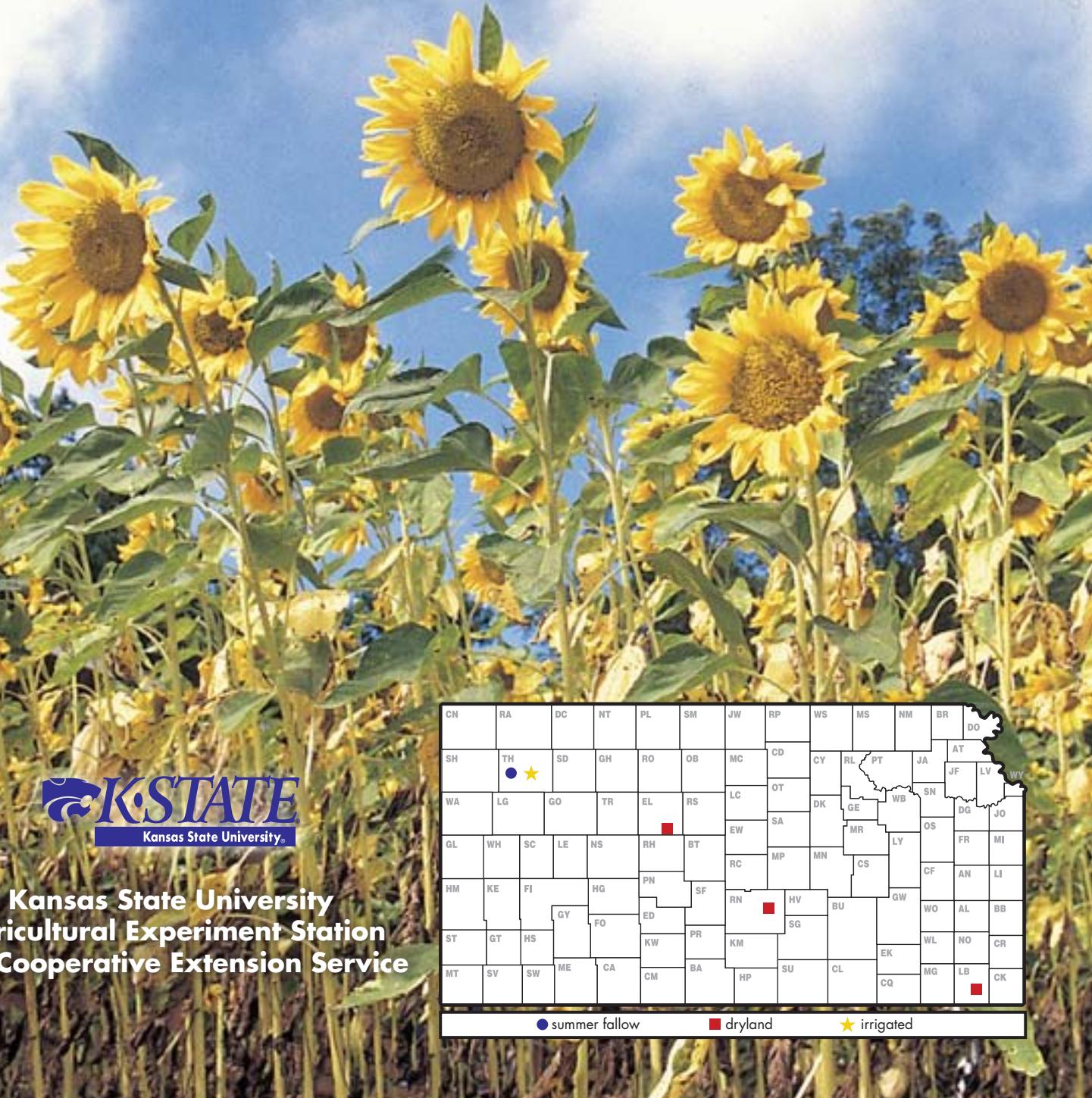


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INTRODUCTION

Objectives and Procedures

Sunflower performance tests were conducted in 2008 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 2008 were Thomas County – fallow, Thomas County – irrigated, and Labette and Hutchinson Counties – dryland. Oilseed entries were grown at all locations. Confectionary entries were evaluated in Thomas County – irrigated and fallow. The Ellis County dryland oilseed test was abandoned because of lodging and head clipper damage. 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 County 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 2008 and period-of-years average data are included in Tables 1 through 6. Entrants and entries in 2008 tests are listed in Table 7.

Data Interpretation

Yields are reported as pounds of seed per 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 pounds of oil per acre.

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, whenever 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, 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 Ethan Stickel and Jenny Dickman 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 2007

50 - 70 - 0 lb/a N, P, K

Planted on 6/10/2008; Harvested on 10/19/2008

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

Good stands were established, and growing conditions were normal until mid-August when conditions were wetter and cooler than normal. These very favorable conditions continued until harvest. Stalk rot and stem weevils caused severe lodging in many plots, affecting the yield.

Month	Precipitation		Average Temp.	
	2008	Norm.	2008	Norm.
Nov.-Mar	1.1	2.4	33	32
April	1.3	1.4	47	49
May	2.9	2.9	58	60
June	0.7	3.4	70	70
July	2.9	3.1	77	76
August	3.1	2.1	72	74
Sept.	1.7	1.6	64	65
Oct.	2.8	0.4	52	53
Totals:	16.5	17.4	51	51

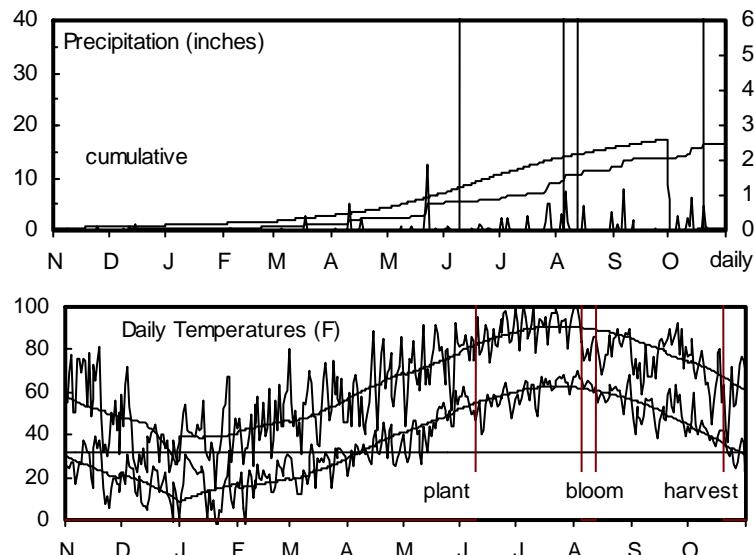


Table 1. Colby Irrigated Oilseed Sunflower Performance Test, 2008

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 SEEDS F30008 NS, CL	2421	95	38.9	942	58	67	31	18.6	12.4
ADVANTA SEEDS F30294 NS RUST	2436	96	39.5	962	59	68	12	26.8	13.2
ADVANTA SEEDS F81015 NS	1797	71	41.3	742	62	80	20	26.3	12.9
ADVANTA SEEDS F81016 NS	2313	91	42.4	981	62	81	4	27.2	14.5
CROPLAN GENETICS 306 DMR	2729	107	42.1	1149	55	61	20	28.4	12.3
CROPLAN GENETICS 3080 DMR	2431	95	44.7	1087	55	61	45	26.5	10.1
CROPLAN GENETICS 325 DMR NS	2814	110	43.1	1213	57	69	20	26.6	13.3
CROPLAN GENETICS 369 DMR NS	2369	93	42.8	1014	57	70	18	25.3	11.8
CROPLAN GENETICS 378 DMR NS	3110	122	42.8	1331	57	68	14	27.8	11.9
CROPLAN GENETICS 528 CL NS	2578	101	42.6	1098	56	64	23	27.5	11.6
CROPLAN GENETICS 551 CL NS	2469	97	39.5	975	57	68	8	26.6	11.9
CROPLAN GENETICS 564 CL NS	2712	106	41.8	1134	59	68	7	30.1	12.3
DEKALB DK 3875	2291	90	41.3	946	57	69	50	28.5	11.6
DEKALB DKF34-33	3057	120	42.7	1305	57	64	30	27.1	12.1
DEKALB DKF34-80CL	2506	98	41.1	1030	58	62	35	25.9	11.7
DEKALB DKF37-31NS	2505	98	41.1	1030	57	65	33	23.9	12.6
DEKALB DKF38-45NS	2779	109	44.8	1245	56	66	32	26.4	13.4
DEKALB DKF39-80CL	2187	86	40.1	877	58	81	39	27.0	11.8
DEKALB IS7120	2566	101	42.3	1085	55	62	27	27.0	12.0
DYNA-GRO SEEDS 94C38	2140	84	43.1	922	60	72	19	25.8	12.6
DYNA-GRO SEEDS 94N82	2368	93	41.2	976	58	70	41	24.6	11.5
DYNA-GRO SEEDS FXO7419	2205	87	38.6	851	60	69	25	26.7	10.2
DYNA-GRO SEEDS FXO8340	2789	109	40.0	1116	57	68	40	23.9	12.4
FONTANELLE 902 NS	2399	94	43.0	1032	59	68	22	24.7	11.3
FONTANELLE IS4668	2553	100	43.1	1100	58	78	31	26.4	13.1
GARST 4651 NS	2765	109	38.9	1076	58	70	18	28.0	12.6
GARST NX43489	2092	82	41.8	874	56	64	40	27.2	12.7
GARST NX44166	3157	124	42.2	1332	57	64	33	29.6	11.6
MONSANTO MH6638	2295	90	43.1	989	58	66	40	27.8	12.2
MONSANTO MH6639	2729	107	40.9	1116	57	68	58	27.7	13.2

Table 1 continued. Colby Irrigated Oilseed Sunflower Performance Test, 2008

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)
MONSANTO MH6640	2977	117	43.7	1301	58	67	27	28.5	11.3
MONSANTO MH6643	2433	95	42.8	1041	55	61	21	26.9	11.5
MYCOGEN 8H350DM	2686	105	43.4	1166	55	65	21	26.5	11.3
MYCOGEN 8H449DM	3271	128	44.8	1465	57	68	32	26.7	11.3
MYCOGEN 8N187	2554	100	40.9	1045	57	60	47	27.0	10.9
MYCOGEN 8N337DM	2076	81	44.6	926	55	62	46	27.7	11.6
MYCOGEN 8N358CL	2113	83	43.2	913	57	66	49	27.6	12.6
MYCOGEN 8N453 DM	2860	112	44.2	1264	57	66	52	27.6	11.7
MYCOGEN 8N510	2580	101	40.5	1045	58	63	32	28.0	10.7
PANNER SEED, INC PAN 7813	2735	107	41.4	1132	58	66	22	28.0	10.2
PANNER SEED, INC PAN 7924	3094	121	40.2	1244	60	65	9	26.0	11.9
PANNER SEED, INC PAN 7986	2856	112	37.2	1062	58	70	14	27.6	12.5
PANNER SEED, INC PAN 9501	2514	99	43.5	1094	59	71	13	26.7	11.6
PIONEER 63M91	2551	100	42.6	1087	57	73	28	28.8	12.6
PIONEER 63N82	2370	93	40.6	962	57	65	37	27.8	13.3
PIONEER 64H41	2033	80	39.9	811	57	72	24	29.5	13.8
TRIUMPH 630CL	2147	84	41.5	891	58	68	26	25.4	11.6
TRIUMPH 636	2636	103	42.6	1123	58	67	20	24.8	12.8
TRIUMPH 645	2328	91	43.6	1015	58	64	23	25.1	13.1
TRIUMPH 845HO	2610	102	42.1	1099	58	65	24	23.0	12.2
TRIUMPH R657	2970	117	43.2	1283	60	67	10	25.3	11.7
TRIUMPH R664	2786	109	43.7	1217	59	71	19	27.1	11.6
TRIUMPH R859HOCL	2181	86	41.2	899	61	70	20	27.3	10.7
TRIUMPH s671	2833	111	42.7	1210	60	50	24	28.9	10.2
TRIUMPH s672	2497	98	44.1	1101	60	45	30	28.4	9.5
TRIUMPH s675	2152	84	44.4	955	61	47	49	27.4	10.8
TRIUMPH s678	2419	95	43.1	1043	61	53	28	27.6	11.6
TRIUMPH s878	2707	106	42.7	1156	59	56	40	26.0	12.4
TRIUMPH s880CL	2221	87	42.3	939	61	45	31	26.7	11.5
TRIUMPH TRX7435HO	2184	86	42.9	937	59	68	48	25.4	12.7
TRIUMPH TRXs7322	2827	111	43.2	1221	60	47	36	28.8	10.4
TRIUMPH TRXs8325	3224	127	43.4	1399	60	50	21	28.9	11.8
AVERAGES	2548	100	42.1	1074	58	65	28	26.8	11.9
CV(%)	18	--	--		1	4	45	9.2	--
LSD(0.05)*	634	--	--		1	4	18	3.5	--

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

2-Year Averages (2007 and 2008)

CROPLAN GENETICS 3080 DMR	2710	101	45.0	1220	55	62	28	28.2	10.2
CROPLAN GENETICS 378 DMR NS	2941	110	42.0	1237	57	69	13	28.0	12.7
CROPLAN GENETICS 528 CL NS	2388	89	42.3	1009	56	64	19	27.8	11.6
CROPLAN GENETICS 564 CL NS	2821	105	43.1	1216	60	68	6	30.9	11.6
DEKALB DKF34-33	2780	104	42.9	1192	57	63	24	28.0	12.1
DEKALB DKF34-80CL	2588	96	41.9	1084	58	63	21	27.5	12.1
DEKALB DKF37-31NS	2699	100	41.8	1129	57	64	23	26.3	13.4
DEKALB DKF38-45NS	2678	100	45.5	1216	56	66	25	28.2	13.2
DYNA-GRO SEEDS 94C38	2772	102	41.6	1142	59	71	14	27.0	12.6
DYNA-GRO SEEDS 94N82	2730	101	43.0	1179	58	68	26	27.0	11.3
DYNA-GRO SEEDS FX07419	2537	94	40.3	1027	60	69	15	27.6	10.3
FONTANELLE 902 NS	2543	95	44.1	1121	59	70	21	26.2	11.6
FONTANELLE IS4668	2582	96	41.5	1071	59	74	21	26.7	12.7
GARST 4651 NS	2789	104	39.7	1107	58	70	14	28.0	13.1
MONSANTO MH6638	2497	93	43.4	1083	58	66	29	28.6	11.6
MONSANTO MH6639	2721	102	42.1	1145	57	67	35	28.2	12.4
MONSANTO MH6640	3062	114	43.9	1344	58	66	18	28.9	11.3
MYCOGEN 8H449DM	3216	120	45.0	1447	57	68	19	28.8	11.5
MYCOGEN 8N337DM	2387	88	44.7	1067	55	63	32	29.0	11.6

Table 1 continued. Colby Irrigated Oilseed Sunflower Performance Test, 2008

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 8N453 DM	3043	113	44.8	1364	57	67	32	29.2	11.8
PIONEER 63M91	2633	98	43.0	1131	57	73	19	29.4	12.6
PIONEER 64H41	2400	89	40.1	962	57	71	15	31.0	14.1
TRIUMPH 636	2659	99	43.8	1163	58	67	17	25.8	13.2
TRIUMPH 645	2436	91	44.6	1086	58	66	22	26.3	12.8
TRIUMPH 845HO	2569	96	43.7	1121	59	67	19	25.0	12.2
TRIUMPH R657	3014	112	44.5	1342	60	69	12	26.8	12.3
TRIUMPH R664	3016	112	44.6	1347	59	71	13	28.7	11.7
TRIUMPH R859HOCL	2517	93	41.7	1051	61	69	17	28.8	10.5
TRIUMPH s671	2991	111	43.8	1310	60	48	14	30.0	10.3
TRIUMPH s672	2759	102	45.0	1242	60	44	19	29.6	9.5
TRIUMPH s675	2671	99	46.2	1243	61	46	32	29.2	11.1
TRIUMPH s678	2819	104	43.8	1236	61	54	16	29.2	11.6
TRIUMPH s878	2820	105	43.0	1211	59	57	23	28.0	11.9
TRIUMPH s880CL	2560	95	42.6	1091	61	44	17	27.3	11.3
AVERAGES	2688	1464	42.7	1149	58	65	19	28.0	11.8

3-Year Averages (2006 to 2008)

CROPLAN GENETICS 3080 DMR	2558	97	45.0	1153	56	58	23	27.4	10.0
CROPLAN GENETICS 378 DMR NS	2733	104	42.1	1150	57	64	11	27.4	12.7
DEKALB DKF37-31NS	2568	97	41.4	1065	57	58	16	26.3	13.7
DEKALB DKF38-45NS	2451	93	44.6	1097	56	62	18	27.7	13.4
FONTANELLE 902 NS	2599	99	44.3	1153	59	65	17	25.6	11.5
GARST 4651 NS	2739	104	40.4	1106	58	64	12	27.7	13.2
MYCOGEN 8N453 DM	2963	113	45.0	1334	57	62	23	29.4	11.5
PIONEER 63M91	2669	102	42.7	1140	57	68	14	29.3	13.0
PIONEER 64H41	2334	88	40.4	943	57	66	14	30.4	14.1
TRIUMPH 636	2648	101	43.7	1158	58	62	13	25.5	13.8
TRIUMPH 645	2498	95	45.1	1128	58	62	16	25.2	12.4
TRIUMPH 845HO	2514	96	44.2	1111	59	63	14	24.4	12.2
TRIUMPH s672	2847	108	45.3	1291	60	41	12	29.2	10.0
TRIUMPH s675	2796	106	45.9	1290	62	44	21	28.8	11.6
TRIUMPH s678	2792	106	43.8	1225	61	51	11	28.7	12.0
AVERAGES	2631	1815	42.6	1123	58	60	15	27.6	11.9

NORTHWEST KANSAS FALLOW OILSEED SUNFLOWER TESTS

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

Keith silt loam; Fallow in 2007; Target stand of 17,000 plants/acre

Planted on 6/11/2008; Harvested on 10/8/2008; 40-20-0 lb/a N, P K

Good stands were established, and growing

conditions were normal until mid-August when

conditions were wetter and cooler than normal.

These very favorable conditions continued until harvest.

Table 2. Colby Fallow Oilseed Sunflower Performance Test, 2008

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 SEEDS F30008 NS, CL	3171	100	43.8	1389	59	54	3	25.9	13.2
CROPLAN GENETICS 306 DMR	3052	96	42.1	1285	56	49	7	27.6	13.5
CROPLAN GENETICS 3080 DMR	2872	90	43.9	1261	55	46	15	26.4	10.5
CROPLAN GENETICS 325 DMR NS	2591	81	43.1	1117	60	55	14	27.9	13.2
CROPLAN GENETICS 369 DMR NS	3028	95	42.0	1272	59	53	6	26.1	12.3
CROPLAN GENETICS 378 DMR NS	3486	110	41.3	1440	59	56	2	27.4	13.2
CROPLAN GENETICS 528 CL NS	2691	85	41.7	1122	57	53	5	27.3	11.9
CROPLAN GENETICS 551 CL NS	2631	83	38.3	1008	58	56	2	26.0	11.8
CROPLAN GENETICS 564 CL NS	2467	78	44.3	1093	61	53	5	27.0	11.9
DEKALB DK 3875	3425	108	37.6	1288	59	56	3	28.1	12.6
DEKALB DKF34-33	3264	103	40.8	1332	58	53	9	27.8	11.6
DEKALB DKF34-80CL	2969	93	42.2	1253	59	50	6	26.3	13.3
DEKALB DKF37-31NS	3601	113	39.0	1404	59	54	5	28.1	3.7
DEKALB DKF38-45NS	3321	104	41.5	1378	59	56	4	28.5	15.0
DEKALB DKF39-80CL	3370	106	40.8	1375	60	62	1	26.5	12.6
DEKALB IS7120	2793	88	40.8	1140	56	46	9	26.4	12.2
DYNA-GRO SEEDS 94C38	3369	106	39.8	1341	60	61	1	26.0	12.4
DYNA-GRO SEEDS 94N82	3468	109	41.8	1450	60	56	1	27.1	11.2
DYNA-GRO SEEDS FXO7419	3561	112	39.0	1389	61	56	1	27.1	11.1
DYNA-GRO SEEDS FXO8340	3246	102	42.8	1389	59	56	4	27.0	13.2
FONTANELLE 902 NS	3385	106	39.4	1334	59	53	7	25.0	12.5
FONTANELLE IS4668	3185	100	38.9	1239	60	65	1	27.0	13.0
GARST 4651 NS	3001	94	42.0	1260	60	56	3	25.8	12.8
GARST NX43489	3011	95	40.9	1231	58	53	12	27.5	12.4
GARST NX44166	3600	113	41.3	1487	58	54	3	31.2	12.7
MONSANTO MH6638	2697	85	42.9	1157	59	49	12	27.3	12.9
MONSANTO MH6639	3179	100	41.6	1322	59	54	5	26.2	12.6
MONSANTO MH6640	3131	98	38.5	1205	60	53	10	28.5	10.9
MONSANTO MH6643	3110	98	42.3	1316	56	50	4	27.4	13.5
MYCOGEN 8H350DM	2921	92	44.9	1312	56	52	7	26.7	10.4
MYCOGEN 8H449DM	3775	119	44.5	1680	59	56	2	28.8	11.7
MYCOGEN 8N187	3175	100	44.2	1403	59	47	3	26.6	11.8
MYCOGEN 8N337DM	3383	106	42.6	1441	55	51	7	27.3	10.9
MYCOGEN 8N358CL	3053	96	37.4	1142	57	54	6	27.1	11.8
MYCOGEN 8N453 DM	3481	109	40.5	1410	58	54	3	28.7	10.7
MYCOGEN 8N510	3035	95	45.3	1375	59	51	3	27.4	10.2
PANNER SEED, INC PAN 7813	3488	110	40.8	1423	60	53	1	27.0	10.2
PANNER SEED, INC PAN 7924	3284	103	37.1	1218	61	55	1	26.0	12.1
PANNER SEED, INC PAN 7986	3237	102	38.8	1256	59	53	3	30.0	14.0
PANNER SEED, INC PAN 9501	3910	123	40.7	1591	60	55	3	28.0	12.6
PIONEER 63M91	3348	105	41.2	1379	59	61	0	28.2	12.7
PIONEER 63N82	2971	93	41.0	1218	59	55	3	27.3	13.8
PIONEER 64H41	3425	108	41.9	1435	59	58	1	31.1	14.9
SEEDS 2000 BLAZER CL-NS	2837	89	40.4	1146	63	55	5	26.0	10.6
SEEDS 2000 SIERRA HO	3573	112	44.5	1590	61	55	3	25.5	9.9
TRIUMPH 660CL	2836	89	43.5	1234	61	55	6	27.7	10.9
TRIUMPH R657	3275	103	41.4	1356	61	52	5	24.0	12.9
TRIUMPH R664	3268	103	42.3	1382	61	54	3	27.9	11.5
TRIUMPH s672	2901	91	43.1	1250	61	37	3	28.5	10.2

Table 2 continued. Colby Fallow Oilseed Sunflower Performance Test, 2008

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)
AVERAGES	3181	100	41.4	1317	59	53	4	27.3	12.0
CV(%)	16	--	--	--	1	5	104	4.0	--
LSD(0.05)*	699	--	--	--	1	4	6	1.5	--

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

2-Year Averages (2007 and 2008)

CROPLAN GENETICS 3080 DMR	1744	83	38.3	731	56	49	16	24.8	8.9
CROPLAN GENETICS 378 DMR NS	2136	103	36.6	845	59	55	10	24.8	10.9
CROPLAN GENETICS 528 CL NS	1593	73	35.7	634	57	52	9	25.9	10.1
CROPLAN GENETICS 564 CL NS	1846	114	40.7	773	61	53	6	25.9	9.8
DEKALB DKF34-33	1946	90	36.0	764	59	52	17	24.8	10.0
DEKALB DKF34-80CL	1837	90	37.8	744	58	49	12	25.4	11.0
DEKALB DKF37-31NS	2286	116	35.5	857	59	51	4	25.8	6.9
DEKALB DKF38-45NS	2088	105	37.6	833	58	53	7	26.5	12.0
DYNA-GRO SEEDS 94C38	2092	103	37.1	810	59	56	13	24.4	10.3
DYNA-GRO SEEDS 94N82	2027	91	38.9	830	60	54	8	25.5	9.7
DYNA-GRO SEEDS FXO7419	2163	103	37.0	828	60	55	9	25.3	9.1
FONTANELLE 902 NS	2009	92	36.7	774	59	53	21	24.0	10.3
FONTANELLE IS4668	2172	121	36.9	822	60	58	7	25.6	11.0
GARST 4651 NS	1890	95	37.9	761	60	55	11	25.0	10.8
MONSANTO MH6638	1677	83	38.3	689	58	50	26	25.8	10.5
MONSANTO MH6639	1955	95	37.2	781	58	52	21	24.1	10.4
MONSANTO MH6640	1768	74	35.9	670	59	52	29	27.0	9.6
MYCOGEN 8H449DM	2275	107	38.8	968	58	54	7	27.6	10.1
MYCOGEN 8N337DM	2141	109	39.0	880	55	52	11	25.5	10.1
MYCOGEN 8N453 DM	2169	107	37.7	854	58	53	6	25.6	9.7
PIONEER 63M91	1958	88	36.5	780	58	57	9	26.9	10.7
PIONEER 64H41	2168	110	37.6	869	59	55	7	27.6	12.9
TRIUMPH 660CL	1797	91	40.6	759	61	54	8	25.8	9.4
TRIUMPH s672	1997	113	41.3	840	61	39	3	26.4	9.1
AVERAGES	1996	456	37.7	797	58	52	10	25.5	10.1

3-Year Averages (2006 to 2008)

DEKALB DKF37-31NS	2049	114	35.5	758	59	50	3	25.6	7.4
DEKALB DKF38-45NS	1848	102	37.5	726	58	52	5	25.9	11.2
FONTANELLE 902 NS	1904	101	38.2	749	59	52	16	23.8	9.8
GARST 4651 NS	1685	93	37.3	661	60	52	9	24.4	10.5
MYCOGEN 8N453 DM	2023	112	38.8	807	59	51	4	26.0	9.3
PIONEER 63M91	1675	84	37.0	660	58	55	7	26.0	10.1
TRIUMPH 660CL	1747	99	39.3	709	61	53	6	25.2	10.1
TRIUMPH s672	1848	112	41.3	774	61	37	2	24.3	9.1
AVERAGES	1807	780	37.6	710	59	51	8	25.1	9.7

SOUTH EAST KANSAS OILSEED SUNFLOWER TESTS

Southeast Agricultural Research Center; Jim Long, agronomist; Kelly Kusel, research technician

Parsons silt loam; Wheat in 2007

60 - 35 - 105 lb/a N, P, K

Planted on 7/8/2008; Harvested on 10/28/2008

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

Too much rain and three hurricane remnants-Hurricanes Ike and Gustav and another from the Pacific in between.

Month	Precipitation		Average Temp.	
	2008	Norm.	2008	Norm.
Nov.-Mar	18.3	10.3	41	39
April	3.5	3.7	54	57
May	6.3	5.0	69	65
June	18.3	4.8	75	74
July	3.7	3.6	79	80
August	3.9	3.8	84	79
Sept.	4.9	4.5	74	71
Oct.	1.6	3.6	58	60
Totals:	60.4	39.3	58	57

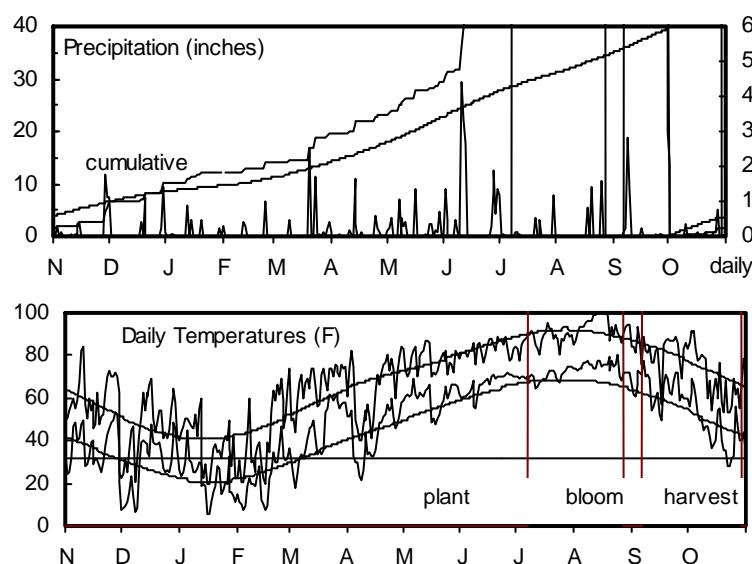


Table 3. Parsons Dryland Oilseed Sunflower Performance Test, 2008

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 SEEDS F30008 NS, CL	884	106	0.0	0	51	--	8	31.8	0.0
CROPLAN GENETICS 3080 DMR	941	113	0.0	0	52	--	18	33.5	0.0
CROPLAN GENETICS 369 DMR NS	1151	138	0.0	0	51	--	25	32.2	0.0
CROPLAN GENETICS 528 CL NS	625	75	0.0	0	50	--	55	32.2	0.0
CROPLAN GENETICS 564 CL NS	907	109	0.0	0	55	--	18	30.1	0.0
DEKALB DK 3875	738	88	0.0	0	52	--	58	32.3	0.0
DEKALB DKF 34-33	652	78	0.0	0	52	--	75	31.3	0.0
DEKALB DKF 34-80CL	791	95	0.0	0	51	--	25	31.1	0.0
DEKALB DKF 37-31NS	735	88	0.0	0	52	--	50	32.3	0.0
DEKALB DKF 38-45NS	594	71	0.0	0	50	--	68	31.6	0.0
DEKALB DKF 39-80CL	1035	124	0.0	0	50	--	30	32.5	0.0
DEKALB IS7120	994	119	0.0	0	51	--	20	30.2	0.0
DYNA-GRO SEEDS 94C38	989	118	0.0	0	51	--	10	33.4	0.0
DYNA-GRO SEEDS 94N82	751	90	0.0	0	54	--	13	31.0	0.0
DYNA-GRO SEEDS FXO7419	953	114	0.0	0	56	--	15	29.8	0.0
DYNA-GRO SEEDS FXO8340	964	115	0.0	0	51	--	48	31.4	0.0
GARST 4651 NS	634	76	0.0	0	54	--	75	30.9	0.0
GARST NX43489	853	102	0.0	0	53	--	25	32.2	0.0
GARST NX44166	1195	143	0.0	0	53	--	10	30.5	0.0
MONSANTO MH6640	571	68	0.0	0	53	--	78	29.6	0.0
MONSANTO MH6643	896	107	0.0	0	51	--	18	29.5	0.0
MONSANTO MH7632	852	102	0.0	0	52	--	33	32.1	0.0
MONSANTO MH7633	417	50	0.0	0	51	--	90	32.1	0.0
PANNER SEED, INC PAN 7813	723	87	0.0	0	53	--	10	31.9	0.0
PANNER SEED, INC PAN 7924	790	95	--	--	54	--	15	32.4	--
PANNER SEED, INC PAN 7986	1263	151	0.0	0	54	--	13	31.8	--
PANNER SEED, INC PAN 9501	847	101	0.0	0	53	--	73	31.9	0.0
TRIUMPH R664	850	102	0.0	0	53	--	50	30.8	0.0
TRIUMPH s671	1181	141	0.0	0	53	--	3	33.2	0.0
TRIUMPH s672	1200	144	0.0	0	54	--	10	32.3	0.0

Table 3 continued. Parsons Dryland Oilseed Sunflower Performance Test, 2008

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)
AVERAGES	835	100	0.0	0	52	--	37	31.5	0.0
CV(%)	22		0.0	0	2	--	35	6.5	0.0
LSD(0.05)*	258		0.0	0	1	--	18	2.9	0.0

* 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 2007

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

Planted on 6/10/2008; Harvested on 10/23/2008

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

Severe lodging affected yields.

Month	Precipitation		Average Temp.	
	2008	Norm.	2008	Norm.
Nov.-Mar	3.8	5.8	36	39
April	2.8	3.9	51	65
May	5.9	4.3	64	75
June	5.4	3.3	75	81
July	2.3	3.1	79	79
August	2.3	3.4	76	70
Sept.	5.5	2.4	67	58
Oct.	4.7	1.2	56	44
Totals:	32.6	27.4	54	56

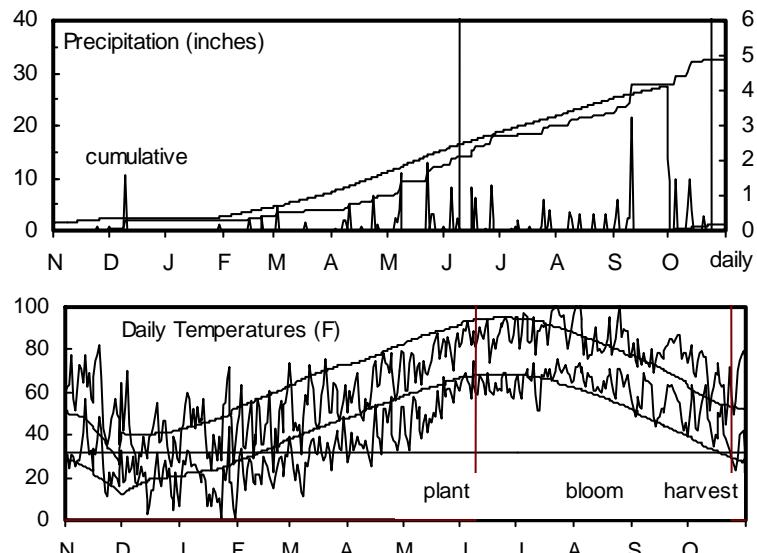


Table 4. Hutchinson Dryland Oilseed Sunflower Performance Test, 2008

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 SEEDS F30008 NS, CL	2431	111	42.0	1021	58	60	13	29.7	11.3
CROPLAN GENETICS 3080 DMR	1911	87	42.4	810	55	52	0	29.4	10.4
CROPLAN GENETICS 369 DMR NS	2065	94	44.2	913	58	58	25	28.9	12.7
CROPLAN GENETICS 528 CL NS	2287	105	43.9	1004	55	56	0	30.1	10.9
CROPLAN GENETICS 564 CL NS	2230	102	44.0	981	59	61	0	29.7	12.1
DEKALB DK 3875	2580	118	42.9	1107	57	56	0	30.4	11.3
DEKALB DKF34-33	2374	109	43.2	1026	57	57	0	29.5	11.6
DEKALB DKF34-80CL	2279	104	42.2	962	56	49	0	30.0	11.1
DEKALB DKF37-31NS	1457	67	43.1	628	57	53	0	30.3	11.0
DEKALB DKF38-45NS	2511	115	42.4	1065	56	57	0	30.9	9.7
DEKALB DKF39-80CL	2355	108	44.0	1036	58	62	0	31.3	11.7
DEKALB IS7120	2026	93	42.8	867	57	47	0	30.3	11.2
DYNA-GRO SEEDS 94C38	1852	85	43.6	807	58	63	0	29.6	11.2
DYNA-GRO SEEDS 94N82	2164	99	43.7	946	58	58	0	30.3	11.1
DYNA-GRO SEEDS FXO7419	2052	94	43.1	884	59	60	0	30.5	10.3
DYNA-GRO SEEDS FXO8340	1780	81	43.2	769	58	58	0	31.2	11.0
GARST 4651 NS	2570	118	42.5	1092	58	56	0	30.7	11.2
GARST NX43489	2162	99	43.8	947	57	55	0	29.2	10.8
GARST NX44166	2541	116	42.4	1077	57	60	0	29.4	11.4
MONSANTO MH6638	2057	94	41.3	850	57	52	0	30.9	11.4
MONSANTO MH6639	2355	108	43.1	1015	57	62	0	31.1	10.7
MONSANTO MH6640	2248	103	44.2	994	58	57	8	30.8	10.5
MONSANTO MH6643	1897	87	44.6	846	56	53	0	30.2	11.6
PANNER SEED, INC PAN 7813	2373	109	42.3	1004	57	55	0	29.9	11.6
PANNER SEED, INC PAN 7924	2304	105	42.8	986	59	62	15	30.6	11.0
PANNER SEED, INC PAN 7986	2033	93	43.6	886	57	62	20	31.0	12.0
PANNER SEED, INC PAN 9501	2187	100	42.7	934	58	58	0	31.4	10.9
TRIUMPH 845HO	2487	114	44.1	1097	57	59	0	30.7	10.9
TRIUMPH R664	1752	80	42.8	750	59	58	0	31.8	10.7
TRIUMPH s671	2282	104	42.6	972	58	41	0	30.6	12.0
TRIUMPH s672	2124	97	43.1	915	58	51	0	30.3	10.5
TRIUMPH TRXs7322	2255	103	43.9	990	59	41	3	31.0	11.6

Table 4 continued. Hutchinson Dryland Oilseed Sunflower Performance Test, 2008

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)
AVERAGES	2187	100	43.1	943	57	56	3	30.3	11.2
CV(%)	23	--	--	--	2	10	527	5.7	--
LSD(0.05)*	697	--	--	--	2	8	19	2.4	--

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

2-Year Averages (2007 and 2008)

DYNA-GRO SEEDS 94C38	1056	86	42.8	458	58	62	15	29.5	9.4
DYNA-GRO SEEDS 94N82	1236	101	42.1	535	59	62	23	30.0	8.8
DYNA-GRO SEEDS FXO7419	1168	94	42.8	502	60	60	21	30.4	9.1
TRIUMPH s672	1228	104	42.5	527	59	47	12	30.1	9.1
AVERAGES	1243	200	42.5	534	58	58	18	30.2	9.6

NORTHWEST KANSAS CONFECTIONARY SUNFLOWER TESTS

Northwest Research-Extension Center, Colby; Patrick Evans, agronomist
 Keith silt loam; Corn in 2007; Target stand of 17,000 plants/acre
 Planted on 6/10/2008; Harvested on 10/18/2008; 50-70-0 lb/a N, P, K

Good stands were established, and growing conditions were normal until mid-August when conditions were wetter and cooler than normal. These very favorable conditions continued until harvest.

Table 5. Colby Irrigated Confectionary Sunflower Performance Test, 2008

BRAND and HYBRID	Yield (lb/a)	% of Avg	Days to Half Blm	Plant Ht. (in.)	Lodg- ing (%)	Test Wt. (lb/bu)	Seed Wt. (g/200)	Seed Size Distribution (%)						
								21/64 Above 22/64	20/64 to 22/64	19/64 to 21/64	18/64 to 20/64	16/64 to 19/64	Below 16/64	
CHS 07EXP02	3001	122	58	--	16	--	30.8	61.6	17.4	8.6	6.1	3.4	1.5	1.4
CHS 08EXP01	2022	82	57	--	5	--	39.3	35.1	20.4	17.8	13.6	7.6	4.1	1.4
CHS INC. RH1121	2575	104	59	--	16	--	27.3	66.7	11.3	8.7	7.1	2.1	2.9	1.2
DAHLGREN 9530	2364	96	58	--	24	--	30.6	48.6	18.4	12.6	10.7	4.2	4.0	1.5
DAHLGREN 9569	2739	111	57	--	16	--	27.6	35.5	17.4	16.2	14.7	8.9	5.1	2.2
DAHLGREN 9592EXP	2262	92	58	--	24	--	31.5	39.6	15.0	11.2	12.2	8.9	10.2	2.9
MYCOGEN 8C 451	2331	95	58	--	22	--	29.9	64.0	15.3	8.7	7.1	2.7	1.8	0.4
RED R. COMMODITIES 2215	1926	78	58	--	40	--	26.2	36.4	20.4	15.8	15.3	6.7	3.9	1.5
RED R. COMMODITIES 2216	2398	97	59	--	15	--	34.7	56.5	16.9	10.8	8.4	3.9	2.6	0.9
RED R. COMMODITIES 7015	2441	99	59	--	10	--	27.0	35.3	19.9	14.5	10.7	5.9	8.7	5.0
RED R. COMMODITIES RRC 2419	3103	126	58	--	7	--	28.4	17.6	14.9	25.2	10.9	7.6	22.3	1.5
SEEDS 2000 BISON	2518	102	58	--	6	--	31.2	35.7	17.8	14.8	15.0	7.9	6.6	2.2
SEEDS 2000 JAGUAR CL	2281	93	57	--	30	--	27.3	45.7	21.2	11.7	8.3	4.6	5.6	2.9
SEEDS 2000 PANTHER II	2436	99	56	--	31	--	29.3	42.2	20.9	14.4	11.6	4.6	4.4	1.9
SUN OPTA 5538A	2851	116	55	--	17	--	21.4	20.8	16.1	17.2	17.4	12.3	13.5	2.7
TRIUMPH 747C	2707	110	57	--	11	--	33.4	28.1	20.6	17.3	17.7	8.1	6.9	1.3
TRIUMPH 767C	2285	93	58	--	22	--	32.4	51.0	24.2	10.1	8.3	3.4	2.2	0.6
TRIUMPH 777C	2150	87	60	--	21	--	32.3	57.8	14.5	11.2	9.4	3.0	2.9	1.2
TRIUMPH TRX7352C	2258	92	59	--	10	--	32.3	38.5	22.1	15.1	11.8	6.6	4.8	1.1
TRIUMPH TRX8359C	2654	108	58	--	12	--	31.1	23.2	13.0	17.1	21.9	11.8	11.3	1.7
AVERAGES	2465	100	58	--	18	--	30.2	42.0	17.9	14.0	11.9	6.2	6.3	1.8
CV(%)		19		--	51	--								
LSD(0.05)*		673		--	13	--								

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

2-Year Averages (2007 and 2008)

CHS INC. RH1121	2539	110	60	67	14	19.9	28.0	68.4	11.2	7.4	6.6	2.6	2.5	1.6
RED R. COMMODITIES 2215	2065	90	58	66	30	20.1	26.7	40.7	20.2	13.9	13.2	6.4	4.5	1.3
RED R. COMMODITIES 2216	2392	104	59	67	17	20.2	30.4	44.3	20.5	13.4	11.2	5.0	4.3	1.5
RED R. COMMODITIES 7015	2317	100	59	66	12	18.8	26.8	34.7	18.0	14.8	11.9	6.5	9.4	5.0
TRIUMPH 767C	2297	100	58	66	22	18.9	29.8	46.0	21.1	12.1	10.2	4.7	4.6	1.3
TRIUMPH 777C	2148	93	60	69	22	18.6	30.1	56.9	15.8	10.6	8.2	4.5	3.0	1.1
TRIUMPH TRX7352C	2242	97	59	66	13	18.8	30.4	41.3	20.1	14.6	11.4	6.3	4.9	1.6
AVERAGES	2321	100	57	65	16	19.4	29.1	41.5	17.8	13.7	11.8	6.4	6.7	2.1

3-Year Averages (2006 to 2008)

RED R. COMMODITIES 2215	2058	100	59	63	21	19.1	26.9	42.4	21.8	14.4	11.8	5.0	3.6	1.1
RED R. COMMODITIES 2216	2142	101	60	65	12	19.5	29.5	44.1	22.2	14.1	10.4	4.4	3.6	1.2
RED R. COMMODITIES 7015	2117	100	60	62	9	18.6	27.5	34.6	20.9	15.3	11.5	6.1	7.9	3.9
TRIUMPH 767C	2143	102	59	61	17	19.3	29.3	47.0	19.3	11.3	9.9	5.2	5.4	1.5
TRIUMPH 777C	2041	98	61	66	16	18.5	29.4	58.6	16.1	10.1	7.7	3.9	2.5	0.8
AVERAGES	2116	100	58	61	12	18.8	29.3	42.9	18.7	13.8	11.3	5.9	5.7	1.7

NORTHWEST KANSAS FALLOW CONFECTIONARY SUNFLOWER TESTS

Northwest Research-Extension Center, Colby; Patrick Evans, agronomist
 Keith silt loam; Fallow in 2007; Target stand of 14,900 plants/acre
 Planted on 6/11/2008; Harvested on 10/8/2008; 40-20-0 lb/a N, P, K

Good stands were established, and growing conditions were normal until mid-August when conditions were wetter and cooler than normal. These very favorable conditions continued until harvest.

Table 6. Colby Fallow Confectionary Sunflower Performance Test, 2008

BRAND and HYBRID	Yield (lb/a)	% of Avg	Days to Half Blm	Plant Ht. (in.)	Lodg- ing (%)	Test Wt. (lb/bu)	Seed Wt. (g/200)	Seed Size Distribution (%)						
								21/64 Above 22/64	20/64 to 22/64	19/64 to 21/64	18/64 to 20/64	16/64 to 19/64	Below 16/64	
MYCOGEN 8C451	2434	93	62	50	2	18.6	26.5	63.9	13.7	10.2	6.8	2.5	2.4	0.8
RED R. COMMODITIES 2215	3138	120	61	52	3	21.7	25.3	59.0	21.2	9.4	6.2	2.5	1.1	0.8
RED R. COMMODITIES 2216	2408	92	62	54	0	18.1	26.0	55.8	18.9	10.0	8.3	3.4	3.0	1.0
RED R. COMMODITIES RRC 2419	2223	85	62	46	2	17.7	25.6	36.2	19.6	19.8	13.5	6.2	3.9	0.9
SUN OPTA 5538A	2872	110	59	52	0	21.4	20.7	34.1	25.1	17.2	11.4	5.1	5.4	1.8
AVERAGES	2615	100	61	51	1	19.5	24.8	49.8	19.7	13.3	9.2	3.9	3.2	1.1
CV(%)		21		4	4	202		14.9						
LSD(0.05)*		838		3	3		4	4.5						

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

Table7. Entrants and Entries in 2008 Sunflower Performance Tests

ADVANTA SEEDS	DEKALB	MYCOGEN	SEEDS 2000
Advanta Seeds USA LLC 1215 Prairie Parkway West Fargo, ND 58078 701-373-8115	Monsanto Seed 4312 Carol Avenue Cortland, IL 60112 815-754-4809	Mycogen Seed 406 18th Ave. N. Whapeton, ND 58075 701-642-6007	Seeds 2000 Box 200 Breckenridge, MN 56520 218-643-2410
F30008 NS, CL	DK 3875	8C451	BISON
F30294 NS RUST	DKF34-33	8H350DM	BLAZER CL-NS
F81015 NS	DKF34-80CL	8H449DM	JAGUAR CL
F81016 NS	DKF37-31NS	8N187	PANTHER II
	DKF38-45NS	8N337DM	SIERRA HO
CHS	DKF39-80CL	8N358CL	
CHS Sunflowers 220 Clement Avenue Grandin, ND 58038 701-484-5313	IS7120	8N453 DM 8N510	SUN OPTA Sun Opta 1701 Industrial Loop Goodland, KS 67735
07EXP02	Dyna-Gro Seeds PO Box 636	PANNER SEED, INC	785-899-5607
08EXP01	Garden City, KS 67846 620-275-4271	Advanta Seeds USA LLC 1215 Prairie Parkway West Fargo, ND 58078 701-373-8115	5538A
CHS INC.	94C38	PAN 7813	TRIUMPH Triumph Seed Co., Inc. PO Box 1050 Ralls, TX 79357 800-530-4789
CHS Sunflowers 220 Clement Avenue Grandin, ND 58038 701-484-5313	94N82 FXO7419 FXO8340	PAN 7924 PAN 7986 PAN 9501	
RH1121	FONTANELLE Fontanelle Hybrid 10981 8th Street Fontanelle, NE 68044 402-721-1410	PIONEER Pioneer Hi-Bred Intl., Inc. 390 Union Blvd. Suite 500A Lakewood, CO 80228 800-258-5604	630CL 636 645 660CL 747C 767C 777C 845HO
CROPLAN GENETICS	902 NS IS4668	63M91 63N82 64H41	R657 R664 R859HOCL
Croplan Genetics PO Box 1291 Minot, ND 58078 701-852-2556	GARST Garst Seed Co. 2369 330th St. Slater, IA 50244 888-464-2778	RED R. COMMODITIES Red River Commodities 1320 East College Drive Colby, KS 67701 785-462-3911	s671 s672 s675 s678 s878 s880CL
306 DMR 3080 DMR 325 DMR NS 369 DMR NS 378 DMR NS 528 CL NS 551 CL NS 564 CL NS	4651 NS NX43489 NX44166	2215 2216 7015 RRC 2419	TRX7352C TRX7435HO TRX8359C TRXs7322 TRXs8325
DAHLGREN	MONSANTO Monsanto Seed 4312 Carol Avenue Cortland, IL 60112 815-754-4809		
Dahlgren 1220 Sunflower St. Crookston, MN 56716 218-281-2985	MH6638 MH6639 MH6640 MH6643		
9530			
9569			
9592EXP			

To access crop performance testing information electronically, visit our Web site. The information contained in this publication, plus more, is available for viewing or downloading at:

<http://kscroptests.agron.ksu.edu>

Excerpts from the
University Research Policy Agreement with Cooperating Seed Companies

Permission is hereby given to Kansas State University (KSU) 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.

I understand that all results from Kansas Crop Performance Tests belong to the University and the public and shall be controlled by the University so as to produce the greatest benefit to the public. Performance data may be used in the following ways: 1) Tables may be reproduced in their entirety provided the source is referenced and data are not manipulated or reinterpreted; 2) Advertising statements by an individual company about the performance of its entries may be made as long as they are accurate statements about the data as published, with no reference to other companies' names or cultivars. In both cases, the following must be included with the reprint or ad citing the appropriate publication number and title: "See the official Kansas State University Agricultural Experiment Station and Cooperative Extension Service Report of Progress 1006, '2008 Kansas Performance Tests with Sunflower Hybrids,' or the Kansas Crop Performance Test Web site, <http://kscroptests.agron.ksu.edu>, for details. Endorsement or recommendation by Kansas State University is not implied."

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