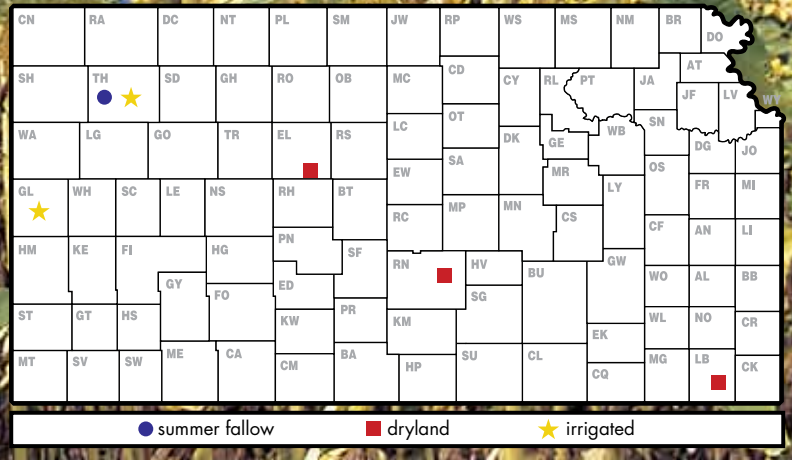
2009

Kansas Performance Tests with

Sunflower Hybrids

Report of Progress 1024



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Agricultural Experiment Station
and Cooperative Extension Service

TABLE OF CONTENTS

Contribution No. 10-220-S from the Kansas Agricultural Experiment Station.

INTRODUCTION

Objectives and Procedures

Sunflower performance tests were conducted in 2009 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 2009 were Thomas County-irrigated and fallow; Greely County-irrigated; Ellis County-dryland; and Labette and Hutchinson Counties-dryland. Oilseed entries were grown at all locations. Confectionary entries were evaluated in Thomas County-irrigated and fallow; Greeley County-irrigated; and Hutchinson and Labette Counties-dryland. 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 presented for each individual test site. Test results for 2009 and period-of-years average data are included in Tables 1 through 11. Entrants and entries in 2009 tests are listed in Table 12.

Data Interpretation

Yields are reported as pounds of seed per acre adjusted to 10% moisture content.

Days to half bloom is the number of days from date of planting to the date when 50% of plants are 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, Kansas Crop Performance Tests coordinator, assisted in preparing this report, and temporary worker Jenny Dickman helped with seed counting, plot thinning, and maintenance. Mary Knapp at the Weather Data Library provided climatological data.

NORTHWEST KANSAS OILSEED SUNFLOWER TESTS

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

Keith silt loam; Soybean in 2008

160 - 40 - 0 lb/a N, P, K

Planted on 6/9/2009; Harvested on 10/26/2009

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

Excellent summer growing conditions with minor lodging in some plots.

	Precipitation		Average Temp.	
Month	2009	Norm.	2009	Norm.
Nov.- Mar.	0.7	2.4	36	32
April	3.8	1.4	49	49
May	4.6	2.9	62	59
June	3.4	3.4	71	70
July	2.2	3.1	74	76
August	2.7	2.1	71	74
Sept.	1.5	1.6	60	66
Oct.	2.1	0.4	44	53
Totals:	21.1	17.4	51	51

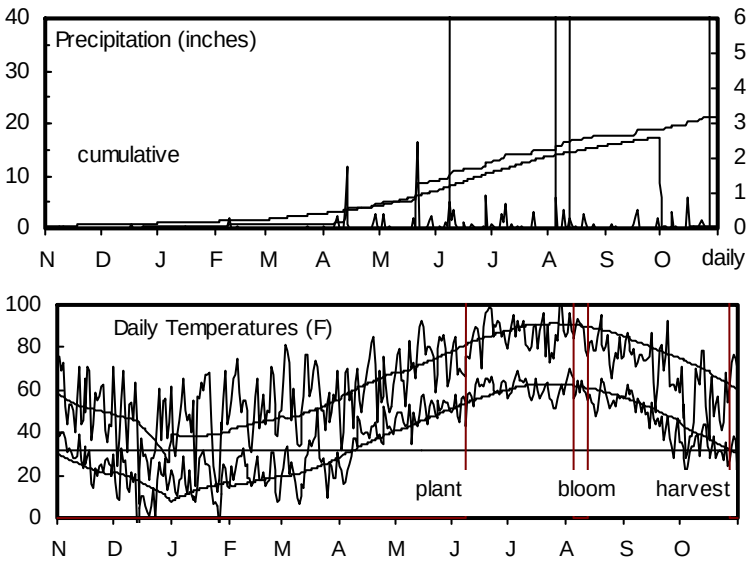


Table 1. Colby Irrigated Oilseed Sunflower Performance Test, 2009

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 USA LLC AP461N	2484	96	40.0	994	63	64	13	26.0	12.0
ADVANTA SEEDS USA LLC AP462N	2608	101	42.0	1095	64	68	3	26.0	12.0
ADVANTA SEEDS USA LLC F30008	2643	103	40.0	1057	65	73	4	28.0	12.0
ADVANTA SEEDS USA LLC F30294	2791	108	41.0	1144	65	70	7	27.0	12.0
ADVANTA SEEDS USA LLC F51557N	2314	90	40.0	926	63	62	2	29.0	13.0
CROPLAN GENETICS CG 306 DMR	2444	95	42.0	1026	61	62	9	27.0	13.0
CROPLAN GENETICS CG 356NS	2779	108	42.0	1167	62	63	17	27.0	12.0
CROPLAN GENETICS CG 369 DMR	3038	118	42.0	1276	61	70	1	27.0	13.0
CROPLAN GENETICS CG 460 E NS	2726	106	43.0	1172	64	74	10	26.0	13.0
CROPLAN GENETICS CG 555 CL DM	2415	94	40.0	966	62	72	1	27.0	12.0
MYCOGEN 8H449DM	3368	131	46.0	1549	63	69	0	30.0	13.0
MYCOGEN 8N187	2458	95	42.0	1032	62	62	16	27.0	11.0
MYCOGEN 8N433DM	3343	130	47.0	1571	61	66	4	28.0	11.0
MYCOGEN 8N453DM	3148	122	47.0	1480	62	70	5	29.0	12.0
MYCOGEN 8N510	1993	77	42.0	837	63	68	23	26.0	10.0
PIONEER 63M91	3076	119	44.0	1353	61	75	3	29.0	12.0
PIONEER 63N82	2122	82	41.0	870	62	72	15	28.0	14.0
PIONEER 64H41	2905	113	42.0	1220	61	71	9	31.0	14.0
SYNGENTA 7120	2232	87	41.0	915	60	60	8	26.0	12.0
SYNGENTA DKF 34-33 NS/DM	2609	101	43.0	1122	62	64	3	29.0	12.0
SYNGENTA DKF 34-80CL	1760	68	42.0	739	62	62	18	25.0	12.0
SYNGENTA DKF 37-31NS	2829	110	42.0	1188	62	64	34	28.0	13.0
SYNGENTA DKF 37-32NS	2948	114	43.0	1268	62	65	22	28.0	12.0
SYNGENTA DKF 38-45NS	2949	115	44.0	1298	61	64	5	27.0	12.0
SYNGENTA DKF 38-75NS	2982	116	42.0	1252	62	69	13	28.0	13.0
SYNGENTA DKF 39-80CL	2391	93	39.0	932	63	75	11	27.0	13.0
SYNGENTA MH9001CL	2157	84	41.0	884	65	70	3	29.0	11.0
SYNGENTA MH9002CL	2354	91	41.0	965	62	72	9	30.0	12.0
TRIUMPH 845HO	2467	96	44.0	1085	64	69	5	24.0	14.0
TRIUMPH R657	2842	110	45.0	1279	63	67	2	26.0	11.0
TRIUMPH R664	3037	118	44.0	1336	64	72	3	28.0	12.0

Table 1 continued. Colby Irrigated Oilseed Sunflower Performance Test, 2009

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)
TRIUMPH R859HOCL	2661	103	43.0	1144	64	69	2	28.0	9.0
TRIUMPH s655	1573	61	41.0	645	64	46	17	25.0	11.0
TRIUMPH s668	2945	114	44.0	1296	64	47	6	29.0	12.0
TRIUMPH s671	2463	96	44.0	1084	64	49	12	29.0	10.0
TRIUMPH s672	2756	107	44.0	1213	66	42	7	28.0	11.0
TRIUMPH s674	2548	99	43.0	1096	65	47	23	28.0	12.0
TRIUMPH s678	2585	100	45.0	1163	64	54	12	29.0	11.0
TRIUMPH s680CL	1569	61	42.0	659	64	46	7	28.0	12.0
TRIUMPH S870hcl	2029	79	43.0	872	64	45	22	27.0	11.0
TRIUMPH s878H	2284	89	45.0	1028	64	57	13	28.0	13.0
TRIUMPH TRX8341	3105	121	44.0	1366	62	64	0	28.0	14.0
TRIUMPH TRXs8328CL	2130	83	45.0	959	64	54	41	26.0	13.0
TRIUMPH TRXs9420HOCL	2158	84	44.0	950	62	43	4	29.0	9.0
TRIUMPH TRXs9429CL	2359	91	44.0	1038	64	40	17	30.0	10.0
AVERAGES	2564	100	43.0	1103	63	62	10	28.0	12.0
CV(%)	17	17	--	--	1	4	81	4.0	--
LSD(0.05)*	622	24	--	--	1	4	12	1.0	--

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

2-Year Averages (2008 and 2009)

ADVANTA SEEDS USA LLC F30008	2532	52	39.5	999	62	70	18	23.3	12.2
ADVANTA SEEDS USA LLC F30294	2614	54	40.3	1053	62	69	10	26.9	12.6
CROPLAN GENETICS CG 306 DMR	2587	48	42.1	1088	58	62	15	27.7	12.7
CROPLAN GENETICS CG 369 DMR	2704	59	42.4	1145	59	70	10	26.2	12.4
MYCOGEN 8H449DM	3320	66	45.4	1507	60	69	16	28.4	12.2
MYCOGEN 8N187	2506	48	41.5	1038	60	61	32	27.0	11.0
MYCOGEN 8N453DM	3004	61	45.6	1372	60	68	29	28.3	11.9
MYCOGEN 8N510	2287	39	41.3	941	61	66	28	27.0	10.4
PIONEER 63M91	2814	60	43.3	1220	59	74	16	28.9	12.3
PIONEER 63N82	2246	41	40.8	916	60	69	26	27.9	13.7
PIONEER 64H41	2469	57	41.0	1016	59	72	17	30.3	13.9
SYNGENTA 7120	2399	44	41.7	1000	58	61	18	26.5	12.0
SYNGENTA DKF 34-80CL	2133	34	41.6	885	60	62	27	25.5	11.9
SYNGENTA DKF 37-31NS	2667	55	41.6	1109	60	65	34	26.0	12.8
SYNGENTA DKF 38-45NS	2864	58	44.4	1271	59	65	19	26.7	12.7
SYNGENTA DKF 39-80CL	2289	47	39.6	905	61	78	25	27.0	12.4
TRIUMPH 845HO	2539	48	43.1	1092	61	67	15	23.5	13.1
TRIUMPH R657	2906	55	44.1	1281	62	67	6	25.7	11.4
TRIUMPH R664	2912	59	43.9	1277	62	72	11	27.6	11.8
TRIUMPH R859HOCL	2421	52	42.1	1021	63	70	11	27.7	9.9
TRIUMPH s655	2200	31	42.1	933	62	47	27	26.9	10.7
TRIUMPH s668	3085	57	43.7	1348	62	49	14	29.0	11.9
TRIUMPH s671	2648	48	43.4	1147	62	50	18	29.0	10.1
TRIUMPH s672	2627	54	44.1	1157	63	44	19	28.2	10.3
TRIUMPH s678	2502	50	44.1	1103	63	54	20	28.3	11.3
TRIUMPH s878H	2496	45	43.9	1092	62	57	27	27.0	12.7
AVERAGES	2556	100	42.6	1088	60	64	19	27.4	12.0

3-Year Averages (2007 to 2009)

MYCOGEN 8H449DM	3266	81	45.3	1481	59	68	13	29.2	12.0
MYCOGEN 8N453DM	3078	79	45.5	1403	59	68	23	29.1	11.8
PIONEER 63M91	2780	72	43.3	1205	58	74	14	29.3	12.4
PIONEER 64H41	2568	70	40.7	1048	58	71	13	31.0	14.0
SYNGENTA DKF 34-80CL	2312	54	41.9	969	59	62	20	26.6	12.0
SYNGENTA DKF 37-31NS	2742	71	41.9	1149	59	64	26	26.9	13.3

Table 1 continued. Colby Irrigated Oilseed Sunflower Performance Test, 2009

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)
SYNGENTA DKF 38-45NS	2768	69	45.0	1244	57	65	18	27.8	12.8
TRIUMPH 845HO	2535	62	43.8	1109	60	68	14	24.6	12.8
TRIUMPH R657	2957	73	44.7	1321	61	68	8	26.5	11.9
TRIUMPH R664	3023	78	44.4	1343	61	71	10	28.4	11.8
TRIUMPH R859HOCL	2565	68	42.1	1082	62	69	12	28.5	10.0
TRIUMPH s671	2815	69	43.8	1235	61	48	13	29.6	10.2
TRIUMPH s672	2758	71	44.6	1232	62	43	15	29.0	10.0
TRIUMPH s678	2741	71	44.2	1212	62	54	15	29.1	11.4
TRIUMPH s878H	2641	64	43.6	1150	61	57	19	28.0	12.3
AVERAGES	2647	100	42.8	1133	60	64	16	28.0	11.9

NORTHWEST KANSAS FALLOW OILSEED SUNFLOWER TESTS

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

Keith silt loam; Fallow in 2008

70 - 20 - 0 lb/a N, P, K

Planted on 6/10/2009; Harvested on 10/26/2009

Target stand of 17,000 plants/acre; 12.3 in. spacing

Excellent growing conditions with above-average rainfall during the growing season.

	Precipitation		Average Temp.	
Month	2009	Norm.	2009	Norm.
Nov.- Mar.	0.7	2.4	36	32
April	3.8	1.4	49	49
May	4.6	2.9	62	59
June	3.4	3.4	71	70
July	2.2	3.1	74	76
August	2.7	2.1	71	74
Sept.	1.5	1.6	60	66
Oct.	2.1	0.4	44	53
Totals:	21.1	17.4	51	51

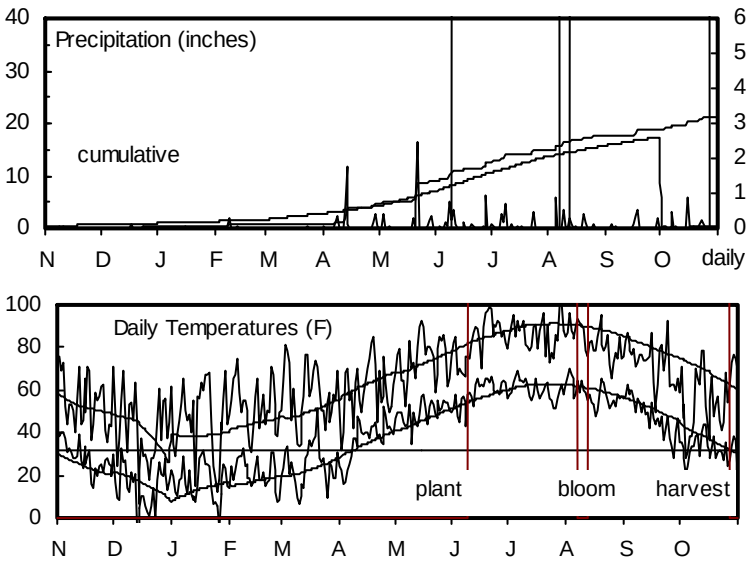


Table 2. Colby Fallow Oilseed Sunflower Performance Test, 2009

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 CG 306 DMR	2073	86	39.0	808	64	52	0	26.0	16.0
CROPLAN GENETICS CG 356NS	2464	102	41.0	1010	65	49	0	27.0	17.0
CROPLAN GENETICS CG 369 DMR	2234	92	39.0	871	67	54	0	23.0	16.0
CROPLAN GENETICS CG 460 E NS	2344	97	42.0	984	66	59	6	23.0	16.0
CROPLAN GENETICS CG 555 CL DM	1825	75	37.0	675	66	60	0	23.0	13.0
MYCOGEN 8H449DM	2386	99	43.0	1026	65	55	0	27.0	15.0
MYCOGEN 8N187	2612	108	38.0	993	63	50	1	26.0	13.0
MYCOGEN 8N433DM	2658	110	44.0	1170	64	56	1	26.0	12.0
MYCOGEN 8N453DM	2596	107	42.0	1090	64	56	3	29.0	12.0
MYCOGEN 8N510	2535	105	40.0	1014	65	55	2	26.0	12.0
PIONEER 63M91	2061	85	41.0	845	65	60	1	27.0	16.0
PIONEER 63N82	2328	96	39.0	908	66	59	1	26.0	17.0
PIONEER 64H41	2566	106	38.0	975	65	60	0	30.0	17.0
SEEDS 2000 BLAZER CL-NS	2127	88	37.0	787	66	58	2	24.0	14.0
SEEDS 2000 FIREBIRD EXPRESS	2668	110	38.0	1014	67	56	0	25.0	14.0
SEEDS 2000 SIERRA HO	3026	125	39.0	1180	66	58	1	24.0	11.0
SYNGENTA 7120	1831	76	38.0	696	63	50	0	26.0	16.0
SYNGENTA DKF 34-33 NS/DM	2225	92	43.0	957	65	53	1	28.0	14.0
SYNGENTA DKF 34-80CL	2059	85	40.0	824	65	52	1	25.0	14.0
SYNGENTA DKF 37-31NS	2560	106	40.0	1024	65	51	0	27.0	17.0
SYNGENTA DKF 37-32NS	2516	104	41.0	1032	64	50	0	27.0	16.0
SYNGENTA DKF 38-45NS	2726	113	43.0	1172	63	55	0	28.0	16.0
SYNGENTA DKF 38-75NS	2754	114	39.0	1074	65	57	4	27.0	15.0
SYNGENTA DKF 39-80CL	2321	96	38.0	882	66	59	2	26.0	14.0
SYNGENTA MH9001CL	2064	85	38.0	784	67	54	0	27.0	14.0
SYNGENTA MH9002CL	2270	94	38.0	863	65	57	2	29.0	13.0
TRIUMPH R657	2598	107	41.0	1065	66	56	7	24.0	20.0
TRIUMPH R664	2677	111	42.0	1124	66	55	1	26.0	16.0
TRIUMPH s671	2452	101	42.0	1030	66	44	0	28.0	13.0
TRIUMPH s672	2515	104	43.0	1081	67	42	0	27.0	13.0
TRIUMPH s674	2595	107	44.0	1142	67	45	0	27.0	15.0

Table 2 continued. Colby Fallow Oilseed Sunflower Performance Test, 2009

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	2409	100	40.0	964	65	54	1	26.0	15.0
CV(%)	16	16	--	--	0	4	211	4.0	--
LSD(0.05)*	545	22	--	--	0	3	4	1.0	--

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

2-Year Averages (2008 and 2009)

CROPLAN GENETICS CG 306 DMR	2563	91	40.6	1047	60	51	4	26.8	14.8
CROPLAN GENETICS CG 369 DMR	2631	94	40.5	1072	63	54	3	24.6	14.2
MYCOGEN 8H449DM	3081	109	43.8	1353	62	56	1	27.9	13.4
MYCOGEN 8N187	2894	104	41.1	1198	61	49	2	26.3	12.4
MYCOGEN 8N453DM	3039	108	41.3	1250	61	55	3	28.9	11.4
MYCOGEN 8N510	2785	100	42.7	1194	62	53	3	26.7	11.1
PIONEER 63M91	2705	95	41.1	1112	62	61	1	27.6	14.4
PIONEER 63N82	2650	95	40.0	1063	63	57	2	26.7	15.4
PIONEER 64H41	2996	107	40.0	1205	62	59	1	30.6	16.0
SEEDS 2000 BLAZER CL-NS	2482	89	38.7	967	65	57	4	25.0	12.3
SEEDS 2000 SIERRA HO	3300	119	41.8	1385	64	57	2	24.8	10.5
SYNGENTA 7120	2312	82	39.4	918	60	48	5	26.2	14.1
SYNGENTA DKF 34-80CL	2514	89	41.1	1038	62	51	4	25.7	13.7
SYNGENTA DKF 37-31NS	3081	110	39.5	1214	62	53	3	27.6	10.4
SYNGENTA DKF 38-45NS	3024	109	42.3	1275	61	56	2	28.3	15.5
SYNGENTA DKF 39-80CL	2846	101	39.4	1128	63	61	2	26.3	13.3
TRIUMPH R657	2937	105	41.2	1211	64	54	6	24.0	16.5
TRIUMPH R664	2973	107	42.2	1253	64	55	2	27.0	13.8
TRIUMPH s672	2708	98	43.1	1166	64	40	2	27.8	11.6
AVERAGES	2795	100	40.7	1140	62	54	3	26.6	13.5

3-Year Averages (2007 to 2009)

MYCOGEN 8H449DM	2312	104	40.2	987	60	54	4	27.4	11.8
MYCOGEN 8N453DM	2311	107	39.1	933	60	54	5	26.7	10.5
PIONEER 63M91	1992	87	38.0	801	60	58	6	26.9	12.5
PIONEER 64H41	2301	109	37.7	904	61	57	5	28.4	14.2
SYNGENTA DKF 34-80CL	1911	88	38.5	770	60	50	8	25.2	12.0
SYNGENTA DKF 37-31NS	2377	113	37.0	913	61	51	3	26.2	10.3
SYNGENTA DKF 38-45NS	2300	108	39.4	946	60	54	5	27.0	13.3
TRIUMPH s672	2170	110	41.8	921	63	40	2	26.6	10.4
AVERAGES	2134	100	38.4	852	61	53	7	25.7	11.8

WEST CENTRAL KANSAS OILSEED SUNFLOWER TESTS

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

Colby silt loam; Corn in 2008

120 - 0 - 0 lb/a N, P, K

Planted on 6/17/2009; Harvested on 10/19/2009

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

Very good conditions for the growing season.

	Precipitation		Average Temp.	
Month	2009	Norm.	2009	Norm.
Nov.- Mar.	0.7	2.1	37	34
April	1.8	1.3	50	49
May	2.2	2.3	63	59
June	1.2	2.5	72	70
July	2.7	2.6	75	76
August	1.4	2.3	71	74
Sept.	0.5	1.3	60	66
Oct.	2.1	0.7	45	53
Totals:	12.5	15.0	52	52

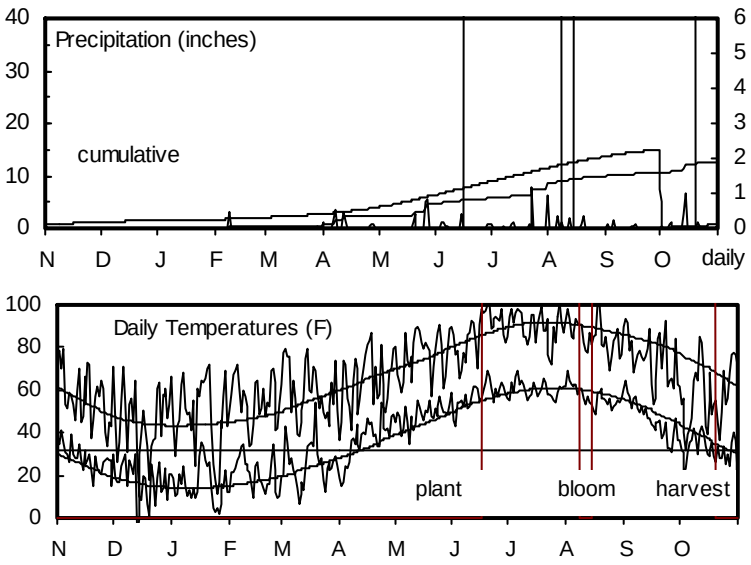


Table 3. Tribune Irrigated Oilseed Sunflower Performance Test, 2009

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 USA LLC AP461N	1968	103	42.0	827	55	64	0	29.0	9.0
ADVANTA SEEDS USA LLC AP462N	1978	103	44.0	870	54	68	0	29.0	12.0
ADVANTA SEEDS USA LLC F30008	1895	99	40.0	758	56	74	0	29.0	12.0
ADVANTA SEEDS USA LLC F30294	1830	95	44.0	805	56	73	0	28.0	9.0
ADVANTA SEEDS USA LLC F51557N	1658	86	41.0	680	56	67	0	30.0	11.0
CROPLAN GENETICS CG 306 DMR	1894	99	42.0	795	52	57	0	29.0	11.0
CROPLAN GENETICS CG 356NS	2164	113	42.0	909	54	56	0	29.0	12.0
CROPLAN GENETICS CG 369 DMR	1847	96	44.0	813	54	70	0	28.0	11.0
CROPLAN GENETICS CG 460 E NS	1433	75	45.0	645	55	69	0	27.0	12.0
CROPLAN GENETICS CG 555 CL DM	2186	114	41.0	896	54	73	0	30.0	12.0
MYCOGEN 8H449DM	1831	95	45.0	824	54	67	0	30.0	11.0
MYCOGEN 8N187	1869	97	42.0	785	54	49	0	27.0	10.0
MYCOGEN 8N433DM	1917	100	43.0	824	53	64	0	29.0	11.0
MYCOGEN 8N453DM	2112	110	46.0	972	54	65	0	31.0	11.0
MYCOGEN 8N510	1881	98	43.0	809	55	69	0	28.0	9.0
SYNGENTA 7120	1804	94	42.0	758	52	63	0	28.0	10.0
SYNGENTA DKF 34-33 NS/DM	1928	100	43.0	829	53	61	0	31.0	12.0
SYNGENTA DKF 34-80CL	1531	80	41.0	628	53	57	0	28.0	13.0
SYNGENTA DKF 37-31NS	2072	108	43.0	891	54	63	0	29.0	13.0
SYNGENTA DKF 37-32NS	2040	106	43.0	877	53	61	0	29.0	12.0
SYNGENTA DKF 38-45NS	1807	94	45.0	813	52	59	0	29.0	13.0
SYNGENTA DKF 38-75NS	2070	108	42.0	869	54	60	0	30.0	14.0
SYNGENTA DKF 39-80CL	1969	103	40.0	788	55	71	0	29.0	11.0
SYNGENTA MH9001CL	1935	101	43.0	832	56	72	0	32.0	10.0
SYNGENTA MH9002CL	1899	99	42.0	798	54	66	0	30.0	10.0
TRIUMPH 660CL	2025	106	46.0	932	56	72	0	30.0	9.0
TRIUMPH R657	1498	78	47.0	704	56	71	0	26.0	12.0
TRIUMPH R664	2036	106	46.0	937	56	66	0	29.0	12.0
TRIUMPH s668	2358	123	46.0	1085	56	51	0	30.0	10.0
TRIUMPH s671	2066	108	45.0	930	55	57	0	30.0	10.0
TRIUMPH s680CL	1700	89	46.0	782	58	49	0	32.0	9.0

Table 3 continued. Tribune Irrigated Oilseed Sunflower Performance Test, 2009

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	1910	100	43.0	821	54	64	0	29.0	11.0
CV(%)	9	9	--	--	1	7	0	2.0	--
LSD(0.05)*	244	12	--	--	0	6	0	0.0	--

* 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; Wayne Aschwege, technician

Harney silt loam; Fallow in 2008

80 - 0 - 0 lb/a N, P, K

Planted on 6/19/2009; Harvested on 11/10/2009

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

Very good conditions for the growing season.

	Precipitation		Average Temp.	
Month	2009	Norm.	2009	Norm.
Nov.- Mar.	0.7	3.5	37	33
April	0.5	1.8	52	50
May	1.1	3.1	66	61
June	1.6	3.8	75	71
July	1.4	3.4	75	78
August	0.4	2.8	73	76
Sept.	0.2	2.3	62	68
Oct.	2.0	1.3	47	55
Totals:	7.9	21.9	53	52

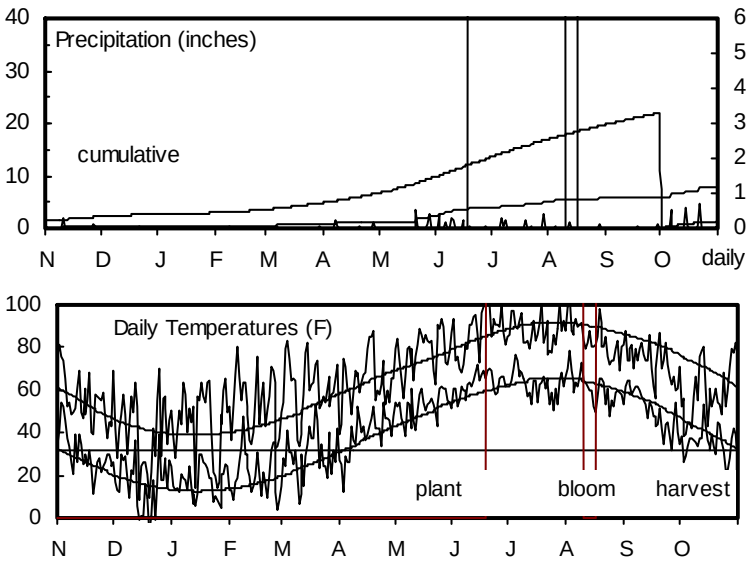


Table 4. Hays Dryland Oilseed Sunflower Performance Test, 2009

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 USA LLC AP461N	2229	112	40.4	901	54	51	4	24.0	0.0
ADVANTA SEEDS USA LLC AP462N	2548	128	39.2	999	53	63	1	24.0	0.0
ADVANTA SEEDS USA LLC F30008	1888	94	37.6	710	54	62	4	23.0	0.0
ADVANTA SEEDS USA LLC F30294	1713	86	40.6	695	55	56	4	22.0	0.0
ADVANTA SEEDS USA LLC F51557N	1808	90	37.6	680	54	54	0	24.0	0.0
CROPLAN GENETICS CG 179	1342	67	40.8	548	54	59	4	24.0	0.0
CROPLAN GENETICS CG 306 DMR	1766	88	40.4	713	53	51	2	22.0	0.0
CROPLAN GENETICS CG 356NS	2595	130	41.1	1067	53	48	2	25.0	0.0
CROPLAN GENETICS CG 369 DMR	2111	106	40.6	857	52	60	0	23.0	0.0
CROPLAN GENETICS CG 460 E NS	1312	65	40.9	537	56	60	4	21.0	0.0
CROPLAN GENETICS CG 555 CL DM	1318	66	44.0	580	56	62	0	22.0	0.0
MYCOGEN 8H449DM	2013	101	39.4	793	55	57	5	22.0	0.0
MYCOGEN 8N187	2499	125	40.2	1005	54	55	3	23.0	0.0
MYCOGEN 8N433DM	2153	108	39.4	848	53	51	3	22.0	0.0
MYCOGEN 8N453DM	2502	125	43.6	1091	53	57	4	24.0	0.0
MYCOGEN 8N510	1901	95	41.8	795	54	50	9	24.0	0.0
PIONEER 63M91	1411	70	40.0	564	53	58	6	25.0	0.0
PIONEER 63N82	1957	98	41.3	808	54	56	0	24.0	0.0
PIONEER 64H41	2347	117	42.5	997	54	55	1	28.0	0.0
SYNGENTA 7120	1714	86	41.1	704	52	47	5	22.0	0.0
SYNGENTA DKF 34-33 NS/DM	1263	63	42.2	533	53	54	8	24.0	0.0
SYNGENTA DKF 34-80CL	1932	97	42.9	829	53	46	8	23.0	0.0
SYNGENTA DKF 37-31NS	2221	111	42.2	937	50	50	2	22.0	0.0
SYNGENTA DKF 37-32NS	2019	101	41.5	838	52	49	5	26.0	0.0
SYNGENTA DKF 38-45NS	1828	91	41.9	766	52	54	1	23.0	0.0
SYNGENTA DKF 38-75NS	1288	64	40.4	520	53	54	3	24.0	0.0
SYNGENTA DKF 39-80CL	2961	148	40.7	1205	54	60	6	23.0	0.0
SYNGENTA MH9001CL	1632	82	42.0	685	56	60	2	25.0	0.0
SYNGENTA MH9002CL	1870	94	40.4	755	54	52	7	22.0	0.0
TRIUMPH 660CL	2338	117	42.7	998	52	55	2	23.0	0.0
TRIUMPH s668	2821	141	39.5	1114	56	43	2	24.0	0.0

Table 4 continued. Hays Dryland Oilseed Sunflower Performance Test, 2009

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)
TRIUMPH s671	2635	132	42.6	1123	54	42	2	23.0	0.0
TRIUMPH s674	1707	85	45.1	770	56	40	1	24.0	0.0
AVERAGES	1989	100	0.0	0	53	54	3	24.0	0.0
CV(%)	11	11	0.0	0	3	9	154	6.0	0.0
LSD(0.05)*	332	16	0.0	0	2	6	8	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.

SOUTH CENTRAL KANSAS DRYLAND OILSEED SUNFLOWER TEST

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

Ost silt loam; Fallow in 2008

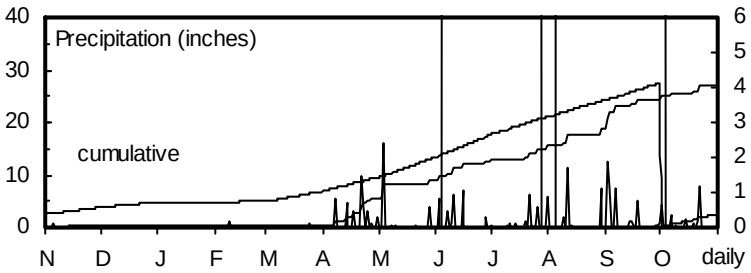
100 - 0 - 0 lb/a N, P, K

Planted on 6/5/2009; Harvested on 10/2/2009

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

Growing conditions were cooler and wetter than normal through out the growing season. Due to wet conditions, the test was hand harvested, and the heads were dried before being thrashed.

	Precipitation		Average Temp.	
Month	2009	Norm.	2009	Norm.
Nov.- Mar.	0.5	4.4	39	37
April	5.1	2.6	54	55
May	3.2	3.8	66	65
June	3.9	4.3	78	75
July	3.0	3.5	77	81
August	3.2	3.1	73	79
Sept.	5.4	3.3	63	70
Oct.	2.8	2.4	49	58
Totals:	27.1	27.3	54	56



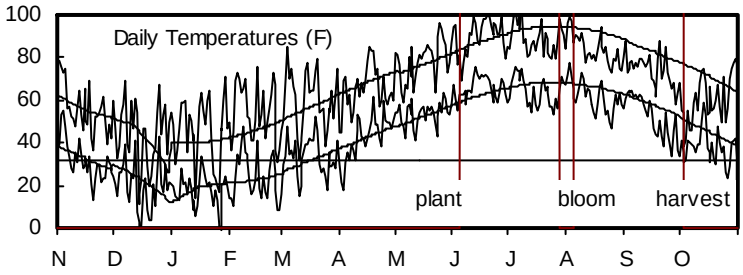


Table 5. Hutchinson Dryland Oilseed Sunflower Performance Test, 2009

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 CG 306 DMR	1326	81	44.0	583	54	46	27	29.0	12.0
CROPLAN GENETICS CG 356NS	2024	123	44.0	891	55	56	0	30.0	12.0
CROPLAN GENETICS CG 369 DMR	2335	143	44.0	1027	55	54	0	28.0	13.0
CROPLAN GENETICS CG 460 E NS	1198	73	44.0	527	58	65	1	28.0	12.0
CROPLAN GENETICS CG 555 CL DM	2103	128	43.0	904	55	59	0	27.0	11.0
MYCOGEN 8H449DM	1486	91	45.0	669	55	61	15	31.0	11.0
MYCOGEN 8N187	1689	103	44.0	743	55	49	1	29.0	10.0
MYCOGEN 8N433DM	1406	86	45.0	633	55	57	5	29.0	12.0
MYCOGEN 8N453DM	1707	104	46.0	785	54	57	0	30.0	10.0
MYCOGEN 8N510	2105	128	43.0	905	55	51	0	28.0	10.0
SYNGENTA 7120	1238	75	45.0	557	55	53	16	29.0	12.0
SYNGENTA DKF 34-33 NS/DM	1166	71	44.0	513	56	57	13	30.0	11.0
SYNGENTA DKF 34-80CL	1855	113	44.0	816	55	54	0	29.0	11.0
SYNGENTA DKF 37-31NS	2007	122	44.0	883	55	54	2	29.0	11.0
SYNGENTA DKF 37-32NS	2101	128	45.0	945	55	55	0	29.0	12.0
SYNGENTA DKF 38-45NS	931	57	44.0	410	55	54	32	28.0	11.0
SYNGENTA DKF 38-75NS	2061	126	44.0	907	55	60	2	29.0	12.0
SYNGENTA DKF 39-80CL	1747	107	44.0	769	55	58	1	29.0	11.0
SYNGENTA MH9001CL	1513	92	43.0	651	58	63	0	31.0	11.0
SYNGENTA MH9002CL	1187	72	44.0	522	55	59	0	30.0	11.0
TRIUMPH 845HO	539	33	44.0	237	55	59	50	28.0	11.0
TRIUMPH s655	1566	95	43.0	673	58	36	1	28.0	11.0
TRIUMPH s671	1920	117	44.0	845	56	46	0	30.0	10.0
TRIUMPH s672	1823	111	46.0	839	56	42	0	30.0	10.0
TRIUMPH s674	1830	112	45.0	824	57	47	0	30.0	10.0
TRIUMPH s680CL	1582	96	43.0	680	59	41	1	30.0	11.0

Table 5 continued. Hutchinson Dryland Oilseed Sunflower Performance Test, 2009

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	1632	100	44.0	718	55	54	6	29.0	11.0
CV(%)	28	28	--	--	2	9	214	4.0	--
LSD(0.05)*	656	40	--	--	2	7	19	2.0	--

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

2-Year Averages (2008 and 2009)

CROPLAN GENETICS CG 369 DMR	2200	119	44.1	970	57	56	13	28.5	12.9
SYNGENTA 7120	1632	84	43.9	712	56	50	8	29.7	11.6
SYNGENTA DKF 34-80CL	2067	109	43.1	889	56	52	0	29.5	11.1
SYNGENTA DKF 37-31NS	1732	94	43.6	756	56	54	1	29.7	11.0
SYNGENTA DKF 38-45NS	1721	86	43.2	737	56	56	16	29.5	10.4
SYNGENTA DKF 39-80CL	2051	107	44.0	902	57	60	1	30.2	11.4
TRIUMPH 845HO	1513	73	44.1	667	56	59	25	29.4	11.0
TRIUMPH s655	1911	99	43.5	832	59	39	2	29.5	11.3
TRIUMPH s671	2101	111	43.3	908	57	44	0	30.3	11.0
TRIUMPH s672	1974	104	44.6	877	57	47	0	30.2	10.3
AVERAGES	1909	100	43.6	831	56	55	4	29.7	11.1

3-Year Averages (2007 to 2009)

TRIUMPH s672	1426	106	43.6	631	58	45	8	30.1	9.4
AVERAGES	1373	100	43.0	595	57	56	14	29.8	10.0

SOUTHEAST KANSAS OILSEED SUNFLOWER TESTS

Southeast Agricultural Research Center; Jim Long, Kelly Kusel, agronomists

Parsons silt loam; Wheat in 2008

70 - 40 - 30 lb/a N, P, K

Planted on 7/1/2009; Harvested on 10/20/2009

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

Excellent moisture and growth during the summer. There were several leaf diseases; alternaria and septoria were most prevalent. Rhizopus head rot on some heads. Very heavy wind and rain at heading caused a great deal of lodging, especially of tall hybrids. Lodging was at the roots of plants.

	Precipitation		Average Temp.	
Month	2009	Norm.	2009	Norm.
Nov.- Mar.	2.4	10.3	40	39
April	6.3	3.7	56	57
May	0.4	5.0	67	65
June	5.3	4.8	78	74
July	5.7	3.6	76	80
August	7.7	3.8	73	79
Sept.	2.1	4.5	63	71
Oct.	2.9	3.6	50	60
Totals:	32.7	39.3	56	57

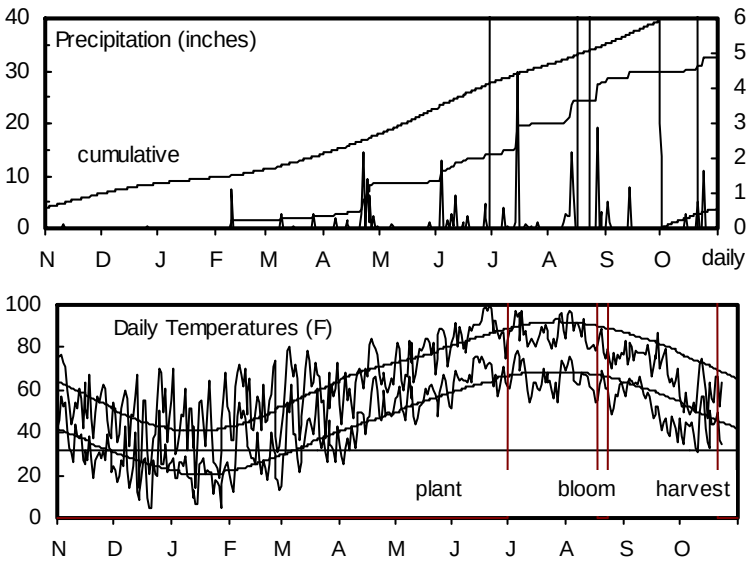


Table 6. Parsons Dryland Oilseed Sunflower Performance Test, 2009

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 CG 306 DMR	1423	83	40.0	569	49	44	35	28.0	9.0
CROPLAN GENETICS CG 356NS	1956	114	42.0	822	50	43	61	26.0	8.0
CROPLAN GENETICS CG 369 DMR	1911	112	41.0	784	49	42	36	26.0	10.0
CROPLAN GENETICS CG 460 E NS	1640	96	40.0	656	54	49	31	27.0	9.0
CROPLAN GENETICS CG 555 CL DM	1266	74	38.0	481	52	47	62	27.0	9.0
MYCOGEN 8H449DM	1568	91	40.0	627	50	50	88	26.0	8.0
MYCOGEN 8N187	1576	92	38.0	599	50	34	21	27.0	8.0
MYCOGEN 8N433DM	1014	59	38.0	385	48	45	71	28.0	8.0
MYCOGEN 8N453DM	1294	75	41.0	531	50	47	80	26.0	9.0
MYCOGEN 8N510	1879	110	38.0	714	51	39	38	27.0	7.0
TRIUMPH s655	1886	110	41.0	773	51	25	5	26.0	9.0
TRIUMPH s671	2265	132	44.0	997	50	29	3	27.0	9.0
TRIUMPH s672	2214	129	43.0	952	52	28	3	25.0	8.0
TRIUMPH s674	1889	110	41.0	774	53	27	0	26.0	8.0
TRIUMPH s678	1651	96	43.0	710	53	35	40	26.0	9.0
TRIUMPH s680CL	1836	107	43.0	789	52	29	0	26.0	8.0
AVERAGES	1704	100	41.0	699	51	38	36	26.0	8.0
CV(%)	12	12	--	--	1	8	35	2.0	--
LSD(0.05)*	294	17	--	--	0	4	18	1.0	--

* 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

Keith silt loam; Soybean in 2008; Target stand of 17,000 plants/acre

Planted on 6/9/2009; Harvested on 10/27/2009; 160 - 40 - 0 lb/a N, P, K

Excellent summer growing conditions with minor lodging in some plots.

Table 7. Colby Irrigated Confectionary Sunflower Performance Test, 2009

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
CHS INC. RH1121	1912	83	64	67	8	17.0	28.2	55.0	16.0	9.0	9.0	6.0	4.0	1.0
CHS INC. RH3126RT	2185	95	64	67	0	17.0	32.4	30.0	21.0	20.0	14.0	6.0	6.0	2.0
CHS INC. RH400CL	1628	70	60	63	7	17.0	29.6	36.0	23.0	18.0	11.0	5.0	4.0	2.0
CROPLAN GENETICS CG 179	2784	121	63	64	2	18.0	28.5	24.0	18.0	18.0	20.0	10.0	9.0	2.0
MYCOGEN 8C 451	2418	105	62	64	3	17.0	28.0	46.0	24.0	12.0	7.0	4.0	5.0	2.0
RED R. COMMODITIES 2215	2687	116	62	65	6	17.0	27.3	34.0	20.0	18.0	17.0	6.0	4.0	1.0
RED R. COMMODITIES 2216	2372	103	62	65	7	17.0	26.2	40.0	21.0	17.0	11.0	6.0	4.0	2.0
RED R. COMMODITIES 2217	2084	90	63	64	6	17.0	26.2	52.0	19.0	13.0	7.0	4.0	3.0	1.0
RED R. COMMODITIES 7015	2734	118	62	64	2	17.0	26.8	28.0	22.0	18.0	15.0	6.0	7.0	4.0
SEEDS 2000 JAGUAR CL	1503	65	60	69	23	18.0	25.9	48.0	22.0	12.0	9.0	3.0	4.0	2.0
SEEDS 2000 PANTHER II	2155	93	61	64	8	20.0	29.4	40.0	20.0	13.0	12.0	5.0	7.0	3.0
SEEDS 2000 X9681	2269	98	64	69	5	17.0	25.0	47.0	17.0	17.0	8.0	4.0	5.0	2.0
TRIUMPH 747C	2640	114	61	63	2	18.0	30.2	34.0	18.0	16.0	16.0	7.0	6.0	2.0
TRIUMPH 767C	2758	119	62	61	7	18.0	34.9	63.0	20.0	9.0	4.0	1.0	1.0	1.0
TRIUMPH 777C	2354	102	64	67	6	17.0	30.1	65.0	15.0	9.0	6.0	3.0	2.0	1.0
AVERAGES	2299	2299	62	65	6	17.0	28.6	43.0	20.0	14.0	11.0	5.0	5.0	2.0
CV(%)	17	17	1	3	76	5.0								
LSD(0.05)*	567	24	0	3	7	1.0								

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

2-Year Averages (2008 and 2009)

CHS INC. RH1121	2244	94	62	67	12	17.0	27.8	61.0	13.5	9.0	8.0	4.0	3.5	1.0
CHS INC. RH3126RT	2593	109	61	67	8	17.0	31.6	46.0	19.0	14.5	10.0	4.5	4.0	1.5
MYCOGEN 8C 451	2375	100	60	64	13	17.0	29.0	55.0	19.5	10.5	7.0	3.5	3.5	1.0
RED R. COMMODITIES 2215	2307	97	60	65	23	17.0	26.8	35.0	20.0	17.0	16.0	6.5	4.0	1.5
RED R. COMMODITIES 2216	2385	100	61	65	11	17.0	30.5	48.0	19.0	14.0	9.5	5.0	3.5	1.5
RED R. COMMODITIES 7015	2588	109	61	64	6	17.0	26.9	31.5	21.0	16.0	13.0	6.0	8.0	4.5
SEEDS 2000 JAGUAR CL	1892	79	59	69	27	18.0	26.6	47.0	21.5	12.0	8.5	4.0	5.0	2.5
SEEDS 2000 PANTHER II	2296	96	59	64	20	20.0	29.4	41.0	20.5	13.5	12.0	5.0	5.5	2.5
TRIUMPH 747C	2674	112	59	63	7	18.0	31.8	31.0	19.5	16.5	17.0	7.5	6.5	1.5
TRIUMPH 767C	2522	106	60	61	15	18.0	33.7	57.0	22.0	9.5	6.0	2.0	1.5	1.0
TRIUMPH 777C	2252	95	62	67	14	17.0	31.2	61.5	14.5	10.0	7.5	3.0	2.5	1.0
AVERAGES	2382	1200	60	65	12	17.0	29.4	42.5	19.0	14.0	11.5	5.5	5.5	2.0

3-Year Averages (2007 to 2009)

CHS INC. RH1121	2330	101	61	67	12	18.5	28.0	64.0	12.7	8.0	7.3	3.7	3.0	1.3
RED R. COMMODITIES 2215	2272	98	59	66	22	18.6	26.9	38.3	20.0	15.3	14.3	6.3	4.3	1.3
RED R. COMMODITIES 2216	2385	103	60	66	13	18.6	29.0	42.7	20.7	14.7	11.0	5.3	4.3	1.7
RED R. COMMODITIES 7015	2456	106	60	65	8	17.9	26.8	32.3	19.3	15.7	13.0	6.3	8.7	4.7
TRIUMPH 767C	2451	106	59	64	17	18.5	31.5	51.7	20.7	11.0	8.0	3.3	3.3	1.3
TRIUMPH 777C	2216	96	61	68	17	17.8	30.1	59.7	15.3	10.0	7.3	4.0	2.7	1.0
AVERAGES	2314	833	59	65	13	18.2	28.9	42.0	18.7	14.0	11.7	6.0	6.0	2.0

NORTHWEST KANSAS FALLOW CONFECTIONARY SUNFLOWER TESTS

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

Keith silt loam; Fallow in 2008; Target stand of 14,900 plants/acre

Planted on 6/10/2009; Harvested on 10/27/2009; 70 - 20 - 0 lb/a N, P, K

Excellent growing conditions with above-average rainfall during the growing season.

Table 8. Colby Fallow Confectionary Sunflower Performance Test, 2009

BRAND and HYBRID	Yield (lb/a)	Yield % of Avg	Days to Half Blm	Plant Ht. (in.)	Lodg-ing (%)	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
CROPLAN GENETICS CG 179	1726	95	65	52	0	15.0	36.5	70.0	14.0	7.0	3.0	2.0	2.0	2.0
MYCOGEN 8C 451	1875	104	66	54	0	15.0	32.1	69.0	11.0	7.0	5.0	2.0	4.0	2.0
AVERAGES	1800	100	66	53	0	15.0	34.3	69.0	12.0	7.0	4.0	2.0	3.0	2.0
CV(%)	32	32	1	3	--	3.0								
LSD(0.05)*	1334	74	1	4	0	1.0								

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

2-Year Averages (2008 and 2009)

MYCOGEN 8C 451	2155	99	64	52	1	16.8	29.3	66.5	12.5	8.5	6.0	2.0	3.0	2.0
AVERAGES	2208	100	64	52	1	17.3	29.6	59.5	16.0	10.0	6.5	3.0	3.0	1.5

WEST CENTRAL KANSAS CONFECTIONARY SUNFLOWER TESTS

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

Colby silt loam; Corn in 2008; Target stand of 17,400 plants/acre

Planted on 6/17/2009; Harvested on 10/19/2009; 120 - 0 - 0 lb/a N, P, K

Very good conditions for the growing season.

Table 9. Tribune Irrigated Confectionary Sunflower Performance Test, 2009

BRAND and HYBRID	Yield (lb/a)	Yield % of Avg	Days to Half Blm	Plant Ht. (in.)	Lodg-ing (%)	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
CHS INC. RH1121	1459	85	58	73	0	15.0	19.1	47.0	8.0	8.0	10.0	8.0	11.0	5.0
CHS INC. RH3126RT	2152	126	56	82	0	16.0	20.2	1.0	3.0	6.0	16.0	19.0	36.0	19.0
CHS INC. RH400CL	1641	96	52	68	0	17.0	24.5	5.0	12.0	13.0	20.0	19.0	25.0	6.0
CROPLAN GENETICS CG 179	1748	102	56	69	0	17.0	24.8	4.0	7.0	9.0	20.0	22.0	28.0	11.0
SEEDS 2000 JAGUAR CL	1650	96	55	64	0	17.0	22.8	19.0	24.0	23.0	18.0	7.0	7.0	2.0
SEEDS 2000 PANTHER II	1666	97	54	69	0	17.0	20.5	14.0	15.0	14.0	18.0	14.0	14.0	10.0
SEEDS 2000 X9681	1489	87	56	75	0	15.0	20.6	22.0	15.0	14.0	17.0	10.0	13.0	9.0
TRIUMPH 747C	1832	107	55	67	0	15.0	22.9	12.0	12.0	13.0	26.0	16.0	18.0	4.0
TRIUMPH 777C	1730	101	59	80	0	16.0	20.3	16.0	19.0	17.0	19.0	12.0	12.0	4.0
AVERAGES	1708	100	55	72	0	16.0	21.7	16.0	13.0	13.0	18.0	14.0	18.0	8.0
CV(%)	7	7	0	7	0	5.0								
LSD(0.05)*	178	10	0	7	0	1.0								

* 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 CONFECTIONARY SUNFLOWER TEST

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

Ost silt loam; Fallow in 2008; Target stand of 22,000 plants/acre

Planted on 6/5/2009; Harvested on 10/02/2009; 100 - 0 - 0 lb/a N, P, K

Table 10. Hutchinson Dryland Confectionary Sunflower Performance Test, 2009

BRAND and HYBRID	Yield (lb/a)	Yield % of Avg	Days to Half Blm	Plant Ht. (in.)	Lodg-ing (%)	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
CROPLAN GENETICS CG 179	1040	100	0	57	0	24.0	25.5	4.0	11.0	15.0	28.0	20.0	20.0	2.0
AVERAGES	1040	100	0	57	0	24.0	25.5	4.0	11.0	15.0	28.0	20.0	20.0	2.0

SOUTHEAST KANSAS CONFECTIONARY SUNFLOWER TESTS

Southeast Agricultural Research Center; Jim Long, Kelly Kusel, agronomists

Parsons silt loam; Wheat in 2008; Target stand of 17,400 plants/acre

Planted on 7/1/2009; Harvested on 10/20/2009; 70 - 40 - 30 lb/a N, P, K

Excellent moisture and growth during the summer. There were several leaf diseases; alternaria and septoria were most prevalent. Rhizopus head rot on some heads. Very heavy wind and rain at heading caused a great deal of lodging, especially of tall hybrids. Lodging was at the roots of plants.

Table 11. Parsons Dryland Confectionary Sunflower Performance Test, 2009

BRAND and HYBRID	Yield (lb/a)	Yield % of Avg	Days to Half Blm	Plant Ht. (in.)	Lodg-ing (%)	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
CROPLAN GENETICS CG 179	1450	100	50	39	42	27.0	19.7	2.0	6.0	16.0	34.0	22.0	16.0	2.0
AVERAGES	1450	100	50	39	42	27.0	19.7	2.0	6.0	16.0	34.0	22.0	16.0	2.0

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

Table 12. Entrants and Entries in 2009 Sunflower Performance Tests

ADVANTA SEEDS
Advanta Seeds USA LLC
1215 Prairie Parkway
West Fargo, ND 58078
701-373-8115

AP462NS
AP461NS
F30008NS
F30294NS, RUST
F51557NS, CL

MYCOGEN
Mycogen Seed
406 18th Ave. N.
Whapeton, ND 58075
701-642-6007

8C 451
8H449DM
8N187
8N433DM
8N453DM
8N510

SEEDS 2000
Seeds 2000
PO Box 200
Breckenridge, MN 56520
218-643-2410

Blazer CL-NS
FIREBIRD EXPRESS
Jaguar CL
Panther II
Sierra HO
X9681

CHS, INC.
CHS Sunflowers, Inc.
220 Clement Avenue
Grandin, ND 58038
701-484-5313

RH1121
RH3126RT
RH400CL

PIONEER
Pioneer Hi-Bred Intl., Inc.
390 Union Blvd. Suite 500A
Lakewood, CO 80228
800-258-5604

63M91
63N82
64H41

SYNGENTA
Syngenta Seeds
7500 Olson Memorial Hwy.
Golden Valley, MN 55427
402-616-6534

7120
DKF 34-33NS/DM
DKF 34-80CL
DKF 37-31NS
DKF 37-32NS
DKF 38-45NS
DKF 38-75NS
DKF 39-80CL
MH9001CL
MH9002CL

CROPLAN GENETICS
Croplan Genetics
PO Box 1291
Minot, ND 58078
701-852-2556

CG 179
CG 306 DMR NS
CG 356 NS
CG 369 DMR NS
CG 460 E NS
CG 555 CL DMR NS

RED R. COMMODITIES
Red River Commodities
1320 East College Drive
Colby, KS 67701
785-462-3911

2215
2216
2217
7015

TRIUMPH
Triumph Seed Co., Inc.
PO Box 1050
Ralls, TX 79357
800-530-4789

660CL
747C
767C
777C
845HO
R657
R664
R859HOCL
s655
s668
s671
s672
s674
s678
s680CL
s870HCL
s878
TRX8341
TRXs8328CL
TRXs9420HOCL
TRXs9429CL

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:

www.agronomy.ksu.edu/kscpt

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 1024, '2009 Kansas Performance Tests with Sunflower Hybrids,' or the Kansas Crop Performance Test Web site, *www.agronomy.ksu.edu/kscpt*, for details. Endorsement or recommendation by Kansas State University is not implied."

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