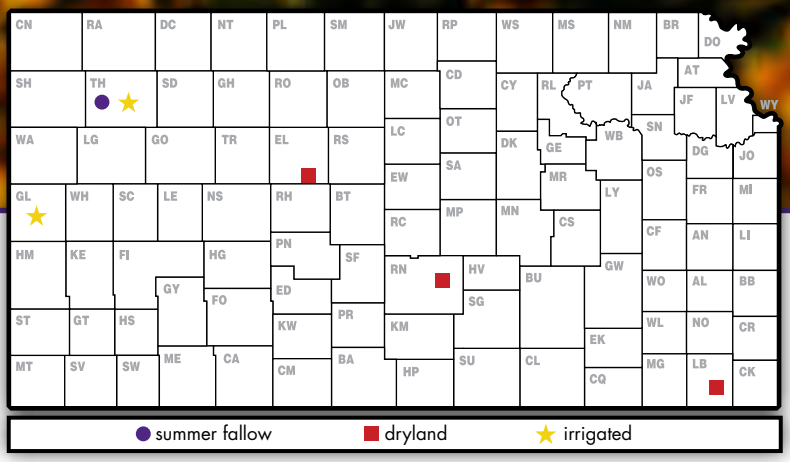
2014 Kansas Performance Tests with

Sunflower Hybrids



Report of Progress 1114

K-STATE
Research and Extension

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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Contribution No. 15-020-S from the Kansas Agricultural Experiment Station.

INTRODUCTION

Objectives and Procedures

Sunflower performance tests were conducted in 2014 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 the tests, and hybrids were not grown uniformly at all locations.

Test locations in 2014 were Thomas County-irrigated and fallow; Greely County-irrigated; Ellis County-dryland; and Labette and Reno Counties-dryland. Oilseed entries were grown at all locations. Confectionary entries were evaluated in Thomas County-irrigated and fallow; Greeley County-irrigated; and Labette County-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. The dryland oilseed test at Ellis County and both oilseed and confectionary tests at Labette County were abandoned because of adverse conditions during the growing season. Test results for 2014 and period-of-years average data are included in Tables 1 through 6. Entrants and entries in 2014 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 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 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 workers Michael Schiferl and Danielle Foster helped with seed counting, plot thinning, and maintenance. Mary Knapp at the Weather Data Library provided climatological data.

NORTHWEST KANSAS FALLOW OILSEED SUNFLOWER TEST

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

Keith silt loam; fallow in 2013

50 - 30 - 0 lb/a N, P, K

Planted on 6/16/2014; Harvested on 10/6/2014

Target stand of 17,000 plants/acre

Good stands were established. Plants benefitted from normal summer temperatures and some timely rainfall.

	Precipitation		Average Temp.		GDU	
Month	2014	Norm.	2014	Norm.	2014	Norm.
Nov.-Mar.	0.6	3.3	34	34	327	206
April	0.2	1.3	51	49	245	175
May	2.5	2.7	60	59	399	327
June	4.9	3.2	70	70	524	553
July	1.8	2.9	75	76	639	701
August	3.4	1.9	76	74	674	669
Sep.-Oct.	2.1	1.7	61	62	796	462
Totals:	15.5	17.2	51	51	3,603	3,093

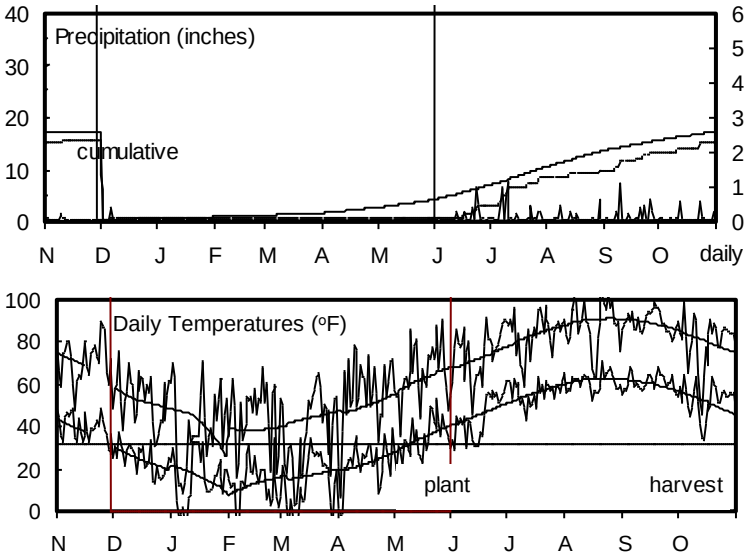


Table 1. Colby Fallow Oilseed Sunflower Performance Test, 2014

Brand	Hybrid	Yield (lb/a)	Yield as % of test average	Oil content (%)	Oil yield (lb/a)	Days to half bloom	Plant height (in.)	Lodging (%)	Test weight (lb/bu)	Seed weight (g/200)
Croplan Genetics	13-08E	1056	85	35	370	59	44	11	22	11
Croplan Genetics	13-652 CL	851	68	37	315	61	45	10	24	9
Croplan Genetics	14-572CL	1252	101	33	413	58	50	4	24	9
Croplan Genetics	545CL	1675	135	35	586	60	45	6	26	7
Croplan Genetics	CG 432ENS	1417	114	33	468	57	44	6	24	12
Croplan Genetics	CG 460 E NS	1107	89	38	421	60	44	19	23	9
Croplan Genetics	CG 559CLDMRNS	1215	98	35	425	61	46	17	23	7
Mycogen	8H 449CLDM	1426	115	37	528	59	39	9	26	7
Mycogen	8H570CLDM	1435	115	41	588	61	33	8	27	7
Mycogen	8H859 CL	1092	88	39	426	60	42	7	24	8
Mycogen	8N668S	1547	124	38	588	60	36	4	26	9
Syngenta	3495NS/CL/DM	977	78	36	352	58	43	20	26	10
Syngenta	3732NS	1435	115	35	502	58	39	5	25	11
Syngenta	7717HO/CL/DM	847	68	34	288	56	42	9	24	9
	AVERAGES	1238	1238	--	--	59	42	10	25	--
	CV (%)	23	23	--	--	1	6	63	5	--
	LSD (0.05)*	414	33	--	--	0	3	9	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 (2013 and 2014)

Croplan Genetics	13-08E	598	68	34	370	60	41	46	22	9
Croplan Genetics	13-652 CL	550	79	34	315	61	40	20	24	8
Croplan Genetics	CG 432ENS	890	122	31	468	57	40	12	24	11
Croplan Genetics	CG 460 E NS	641	76	34	421	60	40	21	23	8
Croplan Genetics	CG 559CLDMRNS	749	99	34	425	61	41	19	21	7
Mycogen	8H 449CLDM	899	124	35	528	59	39	7	26	8
Mycogen	8N668S	910	111	36	588	60	35	9	26	9
AVERAGES		748	97	34	445	60	39	19	24	9

3-Year Averages (2012-2014)

Croplan Genetics	CG 432ENS	1065	117	32	481	58	41	10	24	13
Croplan Genetics	CG 460 E NS	812	80	34	411	61	42	19	23	11
Croplan Genetics	CG 559CLDMRNS	979	103	35	494	61	43	13	22	9
AVERAGES		952	100	34	462	60	42	14	23	11

NORTHWEST KANSAS IRRIGATED OILSEED SUNFLOWER TEST

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

Keith silt loam; soybean in 2013

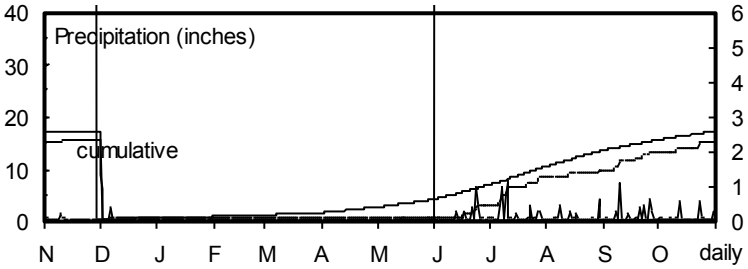
100 - 20 - 0 lb/a N, P, K

Planted on 6/16/2014; Harvested on 10/24/2014

Target stand of 17,000 plants/acre

Good stands were established. Plants benefitted from normal summer temperatures and some timely rainfall.

	Precipitation		Average Temp.		GDU	
Month	2014	Norm.	2014	Norm.	2014	Norm.
Nov.-Mar.	0.6	3.3	34	34	327	206
April	0.2	1.3	51	49	245	175
May	2.5	2.7	60	59	399	327
June	4.9	3.2	70	70	524	553
July	1.8	2.9	75	76	639	701
August	3.4	1.9	76	74	674	669
Sep.-Oct.	2.1	1.7	61	62	796	462
Totals:	15.5	17.2	51	51	3,603	3,093



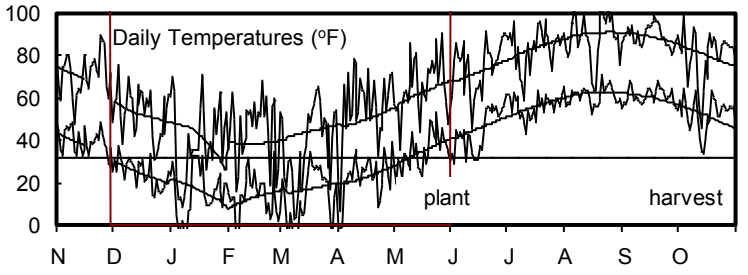


Table 2. Colby Irrigated Oilseed Sunflower Performance Test, 2014

Brand	Hybrid	Yield (lb/a)	Yield as % of test average	Oil content (%)	Oil yield (lb/a)	Days to half bloom	Plant height (in.)	Lodging (%)	Test weight (lb/bu)	Seed weight (g/200)
Croplan Genetics	13-08E	2593	95	39	1011	59	69	0	27	13
Croplan Genetics	13-652 CL	2909	107	41	1193	60	69	0	27	12
Croplan Genetics	14-572CL	2661	98	40	1064	58	70	1	28	13
Croplan Genetics	545CL	2630	96	41	1078	60	67	4	28	12
Croplan Genetics	CG 432ENS	2465	90	39	961	57	67	1	28	14
Croplan Genetics	CG 460 E NS	2506	92	42	1053	60	68	8	27	13
Croplan Genetics	CG 559CLDMRNS	2944	108	42	1236	60	73	3	24	12
Mycogen	8H 449CLDM	3125	115	43	1344	60	66	3	29	12
Mycogen	8H570CLDM	2483	91	40	993	58	62	0	26	13
Mycogen	8H859 CL	2203	81	41	903	60	65	6	27	11
Mycogen	8N668S	3278	120	45	1475	61	49	5	29	11
Nuseed Americas	Camaro II	2570	94	40	1028	59	66	5	28	14
Nuseed Americas	Falcon NS/SU	2701	99	40	1080	59	63	6	29	12
Nuseed Americas	Hornet	2918	107	42	1226	61	69	6	23	12
Syngenta	3495NS/CL/DM	2742	101	41	1124	59	66	2	24	12
Syngenta	3732NS	2836	104	42	1191	58	64	2	27	12
Syngenta	7717HO/CL/DM	2542	93	40	1017	57	65	5	28	13
	AVERAGES	2712	2712	41	1116	59	66	3	27	12
	CV (%)	12	12	--	--	0	105	70	13	--
	LSD (0.05)*	476	17	--	--	0	113	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 (2013 and 2014)

Croplan Genetics	13-08E	1643	64	41	1303	60	62	17	27	13
Croplan Genetics	CG 432ENS	2370	100	39	1198	57	61	3	28	14
Croplan Genetics	CG 460 E NS	2400	101	43	1343	60	62	9	27	14
Croplan Genetics	CG 559CLDMRNS	2455	102	42	1404	60	68	7	27	12
Mycogen	8H 449CLDM	2860	121	44	1512	60	62	3	30	13
Mycogen	8N668S	2964	124	44	1554	60	54	6	29	12
Nuseed Americas	Camaro II	2483	105	41	1289	59	61	7	29	14
Nuseed Americas	Falcon NS/SU	2382	100	40	1280	59	60	7	29	12

Table 2 continued. Colby Irrigated Oilseed Sunflower Performance Test, 2014

Brand	Hybrid	Yield (lb/a)	Yield as % of test average	Oil content (%)	Oil yield (lb/a)	Days to half bloom	Plant height (in.)	Lodging (%)	Test weight (lb/bu)	Seed weight (g/200)
Nuseed Americas	Hornet	2364	97	42	1424	61	62	8	26	11
AVERAGES		2436	102	42	1367	60	61	7	28	13
3-Year Averages (2012-2014)										
Croplan Genetics	CG 432ENS	2971	100	38	1314	55	65	3	29	15
Croplan Genetics	CG 460 E NS	2460	96	39	1350	59	63	7	28	13
Croplan Genetics	CG 559CLDMRNS	2902	98	42	1497	58	68	8	27	13
Mycogen	8H 449CLDM	3554	120	43	1670	58	64	3	30	12
Nuseed Americas	Falcon NS/SU	2893	96	40	1352	59	62	6	29	12
Syngenta	3495NS/CL/DM	3233	95	39	1253	56	64	2	27	13
AVERAGES		3002	101	40	1406	58	64	5	28	13

WEST CENTRAL IRRIGATED OILSEED SUNFLOWER TEST

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

Colby silt loam; corn in 2013

120 - 25 - 0 lb/a N, P, K

Planted on 6/19/2014; Harvested on 11/17/2014

Target stand of 23,000 plants/acre

Poor stands in some plots; very dry after mid-August. Irrigated 10.84 inches.

	Precipitation		Average Temp.		GDU	
Month	2014	Norm.	2014	Norm.	2014	Norm.
Nov.-Mar.	0.4	2.8	36	36	349	261
April	0.6	1.2	52	49	256	207
May	0.9	2.2	62	59	418	356
June	3.3	2.4	71	70	550	544
July	2.6	2.4	76	76	650	674
August	2.9	2.1	76	74	676	653
Sep.-Oct.	3.2	1.6	62	63	823	483
Totals:	13.8	14.7	52	52	3,722	3,177

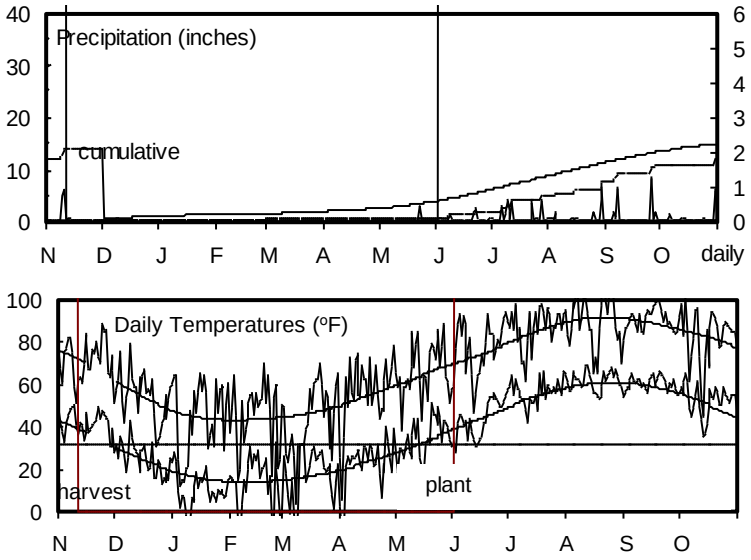


Table 3. Tribune Irrigated Oilseed Sunflower Performance Test, 2014

Brand	Hybrid	Yield (lb/a)	Yield as % of test average	Oil content (%)	Oil yield (lb/a)	Days to half bloom	Plant height (in.)	Lodging (%)	Test weight (lb/bu)	Seed weight (g/200)
Croplan Genetics	13-08E	1153	102	--	--	58	63	--	28	--
Croplan Genetics	13-652 CL	891	78	--	--	59	62	--	28	--
Croplan Genetics	14-572CL	1145	101	--	--	56	65	--	30	--
Croplan Genetics	545CL	1451	128	--	--	58	65	--	31	--
Croplan Genetics	CG 432ENS	696	61	--	--	55	52	--	24	--
Croplan Genetics	CG 460 E NS	270	23	--	--	59	66	--	27	--
Croplan Genetics	CG 559CLDMRNS	1459	129	--	--	58	67	--	31	--
Mycogen	8H 449CLDM	1359	120	--	--	58	59	--	31	--
Mycogen	8H570CLDM	1481	131	--	--	59	45	--	30	--
Mycogen	8H859 CL	1393	123	--	--	58	64	--	29	--
Mycogen	8N668S	1632	144	--	--	59	50	--	31	--
NUSEED AMERICAS	Camaro II	1171	103	--	--	57	62	--	32	--
NUSEED AMERICAS	FALCON NS/SU	1364	120	--	--	57	56	--	32	--
NUSEED AMERICAS	Hornet	1141	101	--	--	59	69	--	32	--
Syngenta	3495NS/CL/DM	947	83	--	--	56	60	--	32	--
Syngenta	3732NS	861	76	--	--	56	53	--	31	--
Syngenta	7717HO/CL/DM	782	69	--	--	54	56	--	28	--
	AVERAGES	1129	1129	--	--	57	60	--	30	--
	CV (%)	22	22	--	--	0	5	--	5	--
	LSD (0.05)*	363	32	--	--	0	4	--	2	--

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

SOUTH CENTRAL DRYLAND OILSEED SUNFLOWER TEST

Redd Research Quarter, Hutchinson; Gary Cramer, agronomist; Wendell Lilyhorn and Keith Thompson, technicians

Ost silt loam; wheat in 2013

85 - 40 - 0 lb/a N, P, K

Planted on 6/20/2014; Harvested on 10/29/2014

Target stand of 22,000 plants/acre

Excellent germination and timely rains during the summer months. There were no significant disease or insect problems. Skunks digging at the base of the plants was the main cause for lodging.

	Precipitation		Average Temp.		GDU	
Month	2014	Norm.	2014	Norm.	2014	Norm.
Nov.-Mar.	2.3	5.6	33	39	348	324
April	0.8	2.4	55	55	277	254
May	3.8	3.6	67	65	508	427
June	5.6	4.0	75	75	660	666
July	2.5	3.2	76	81	687	779
August	2.8	2.9	79	79	757	756
Sep.-Oct.	4.4	4.3	65	67	955	586
Totals:	22.3	26.1	53	56	4,192	3,792

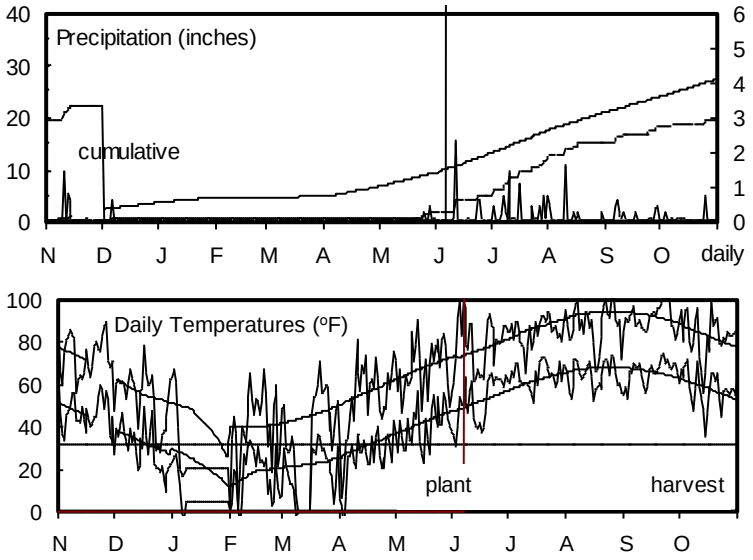


Table 4. Hutchinson Dryland Oilseed Sunflower Performance Test, 2014

Brand	Hybrid	Yield (lb/a)	Yield as % of test average	Oil content (%)	Oil yield (lb/a)	Days to half bloom	Plant height (in.)	Lodging (%)	Test weight (lb/bu)	Seed weight (g/200)
Syngenta	3495NS/CL/DM	1138	107	31	353	--	51	58	18	5
Syngenta	3732NS	1084	102	33	358	--	47	38	19	7
Syngenta	7717HO/CL/DM	947	89	34	322	--	53	38	20	6
	AVERAGES	1056	1056	33	348	--	50	44	19	6
	CV (%)	22	22	--	--	--	3	27	8	--
	LSD (0.05)*	407	38	--	--	--	2	21	2	--

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

NORTHWEST IRRIGATED CONFECTIONARY SUNFLOWER TEST

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

Keith silt loam; soybean in 2013

100 - 20 - 0 lb/a N, P, K

Planted on 6/16/2014; Harvested on 10/24/2014

Target stand of 17,000 plants/acre

Good stands were established. Plants benefitted from normal summer temperatures and some timely rainfall.

Table 5. Colby Irrigated Confectionary Sunflower Performance Test, 2014

			Yield as %		Test	Seed	Seed Sizing						
		Yield	of test	Lodging	weight	weight	>22	21-22	20-21	19-20	18-19	16-18	<16
Brand	Hybrid	(lb/a)	average	(%)	(lb/bu)	(g/200)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
CHS Sunflower	12EXP01	3158	112	3	18	30	43	21	16	11	5	3	2
CHS Sunflower	14EXP01	3055	108	4	19	31	61	11	6	9	5	6	2
CHS Sunflower	14EXP02	3437	121	3	19	30	27	23	18	16	6	7	4
Genosys	14GCF01	2349	83	7	19	32	29	12	12	19	11	12	3
Genosys	12GCF05	2574	91	3	19	33	44	15	13	15	6	6	2
Genosys	12GCF12	2384	84	23	18	32	31	18	20	17	5	6	3
Genosys	12GCF18	2593	91	9	18	33	52	14	12	11	6	5	1
Genosys	12GCFO7	2385	84	1	19	31	28	17	17	14	9	11	4
NUSEED GLOBAL	5009	3318	117	3	16	28	28	16	15	17	10	10	4
NUSEED GLOBAL	Jaguar CL	2736	97	5	19	30	30	21	18	14	8	6	3
NUSEED GLOBAL	Jaguar II CL	2964	105	1	19	28	41	14	15	11	8	7	3
NUSEED GLOBAL	NHW12759	2519	89	1	19	29	41	16	12	14	6	7	5
NUSEED GLOBAL	NHW12985	2916	103	1	18	32	46	18	12	7	5	8	4
NUSEED GLOBAL	NSK12M018	3133	111	2	17	30	25	12	12	17	12	16	6
NUSEED GLOBAL	X4334 CL	2719	96	0	18	31	38	22	12	14	6	6	2
NUSEED GLOBAL	X5334	2767	98	7	18	30	46	17	9	12	4	8	3
NUSEED GLOBAL	X98578	2684	95	3	19	33	44	18	14	10	4	6	4
RED R. COMMODITIES	2215	3026	107	3	19	28	26	19	19	20	7	8	2
RED R. COMMODITIES	2217	2610	92	5	18	29	41	19	18	12	5	4	1
RED R. COMMODITIES	8015	3726	132	5	18	29	23	17	18	22	11	6	2
RED R. COMMODITIES	2215CL	2852	101	8	19	26	26	15	14	16	13	13	4
Sunopta/Dahlgren	9521	2842	100	6	20	29	49	17	13	11	5	4	2
Sunopta/Dahlgren	9506CL	2097	74	7	19	31	46	14	11	10	8	8	2
	AVERAGES	2819	2819	5	18	30	38	17	14	14	7	8	3
	CV (%)	16	16	--	10	--	--	--	--	--	--	--	--
	LSD (0.05)*	674	23	10	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 (2013 and 2014)

			Yield as %		Test	Seed
		Yield	of test	Lodging	weight	weight
Brand	Hybrid	(lb/a)	average	(%)	(lb/bu)	(g/200)
NUSEED GLOBAL	5009	2434	110	3	18	28
NUSEED GLOBAL	Jaguar CL	2165	102	8	19	30
NUSEED GLOBAL	Jaguar II CL	2171	99	4	20	28
RED R. COMMODITIES	2215	2236	102	7	20	28
RED R. COMMODITIES	2217	2096	99	9	19	29
RED R. COMMODITIES	8015	2582	114	8	19	29
RED R. COMMODITIES	2215CL	2243	105	7	20	26
Sunopta/Dahlgren	9521	2236	105	6	21	29
Sunopta/Dahlgren	9506CL	1781	86	7	20	30
AVERAGES		2216	102	7	20	29

3-Year Averages (2012-2014)

NUSEED GLOBAL	Jaguar CL	2355	102	6	19	32
RED R. COMMODITIES	2215	2294	98	7	19	31
RED R. COMMODITIES	2217	2492	107	8	19	31
RED R. COMMODITIES	8015	2716	114	9	19	32
AVERAGES		2464	105	8	19	32

WEST CENTRAL IRRIGATED CONFECTIONARY SUNFLOWER TEST

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

Colby silt loam; corn in 2013

120 - 25 - 0 lb/a N, P, K

Planted on 6/19/2014; Harvested on 11/17/2014

Target stand of 17,400 plants/acre

Poor stands in some plots; very dry after mid-August.

Table 6. Tribune Irrigated Confectionary Sunflower Performance Test, 2014

Brand	Hybrid	Yield (lb/a)	Yield as % of test average	Days to half bloom	Plant height (in.)	Lodging (%)	Test weight (lb/bu)	Seed weight (g/200)
CHS Sunflower	12EXP01	1994	153	59	62	--	17	--
CHS Sunflower	14EXP01	1869	144	60	61	--	17	--
CHS Sunflower	14EXP02	1892	145	60	68	--	17	--
NUSEED GLOBAL	5009	715	55	58	47	--	17	--
NUSEED GLOBAL	Jaguar CL	1223	94	57	52	--	17	--
NUSEED GLOBAL	Jaguar II CL	748	57	57	47	--	17	--
NUSEED GLOBAL	NHW12759	1360	104	57	52	--	17	--
NUSEED GLOBAL	NHW12985	1077	83	58	56	--	17	--
NUSEED GLOBAL	NSK12M018	908	70	60	62	--	17	--
NUSEED GLOBAL	X4334 CL	857	66	60	60	--	17	--
NUSEED GLOBAL	X5334	1021	78	61	64	--	17	--
NUSEED GLOBAL	X98578	1735	133	59	57	--	17	--
Sunopta/Dahlgren	9521	1760	135	59	60	--	17	--
Sunopta/Dahlgren	9506CL	997	76	63	60	--	17	--
	AVERAGES	1297	1297	59	58	--	17	--
	CV (%)	17	17	1	7	--	2	--
	LSD (0.05)*	327	25	0	6	--	0	--

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

CHS Sunflower
220 Clement Avenue
Grandin, ND 58038
701-484-5129
12EXP01
14EXP01
14EXP02

Mycogen Seeds
9330 Zionsville Road
Indianapolis, IN 46268
800-MYCOGEN
8H 449CLDM
8H 570CLDM
8H 859CL
8N 668S

Red River Commodities, Inc
1320 East College Drive
Colby, KS 67701
785-462-3911
2215
2215CL
2217
8015

Croplan by Winfield
525 55th Street SE
Minot, ND 58701
701-852-3556
13-08E
13-652CL
14-572CL
545CL
CG 432ENS
CG 460 ENS
CG 559CLDMRNS

Nuseed Americas, Inc.
115 3rd Street N
Breckenridge, MN 56520
218-643-2410
Camaro II
Falcon NS/SU
Hornet

Sunopta
1220 Sunflower Street
Crookston, MN 56716
218-281-2985
9521
9506CL

Genosys, LLC
1290 46th Street N, Unit A
Fargo, ND 58102
650-996-0298
12GCF05
12GCF07
12GCF12
12GCF18
14GCF01

Nuseed Global
10 N East Street, Suite 200
Woodland, CA 95776
530-908-8076
5009
Jaguar CL
Jaguar II CL
NHW12759
NHW12985
NSK12M018
X4334 CL
X5334
X98578

Syngenta
1107 White Oak Court
Fort Collins, CO 80525
763-567-8299
3495NS/CL/DM
3732NS
7717HO/CL/DM

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

www.agronomy.k-state.edu/services/crop-performance-tests/index.html

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 1114, '2014 Kansas Performance Tests with Sunflower Hybrids,' or the Kansas Crop Performance Test website, *www.agronomy.k-state.edu/services/crop-performance-tests/index.html*, for details. Endorsement or recommendation by Kansas State University is not implied."

Contributors

Patrick Evans, Research Technologist (Senior Author), Colby
Jane Lingenfelser, Assistant Agronomist, Manhattan
Mary Knapp, Kansas State Climatologist, Manhattan
Alan Schlegel, Agronomist, Tribune
Kelly Kusel, Agronomist, Parsons
Gary Cramer, Agronomist, Hutchinson
Wayne Aschwege, Technician, Hays

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Kansas State University Agricultural Experiment Station and Cooperative Extension Service

SRP1114 January 2015

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