

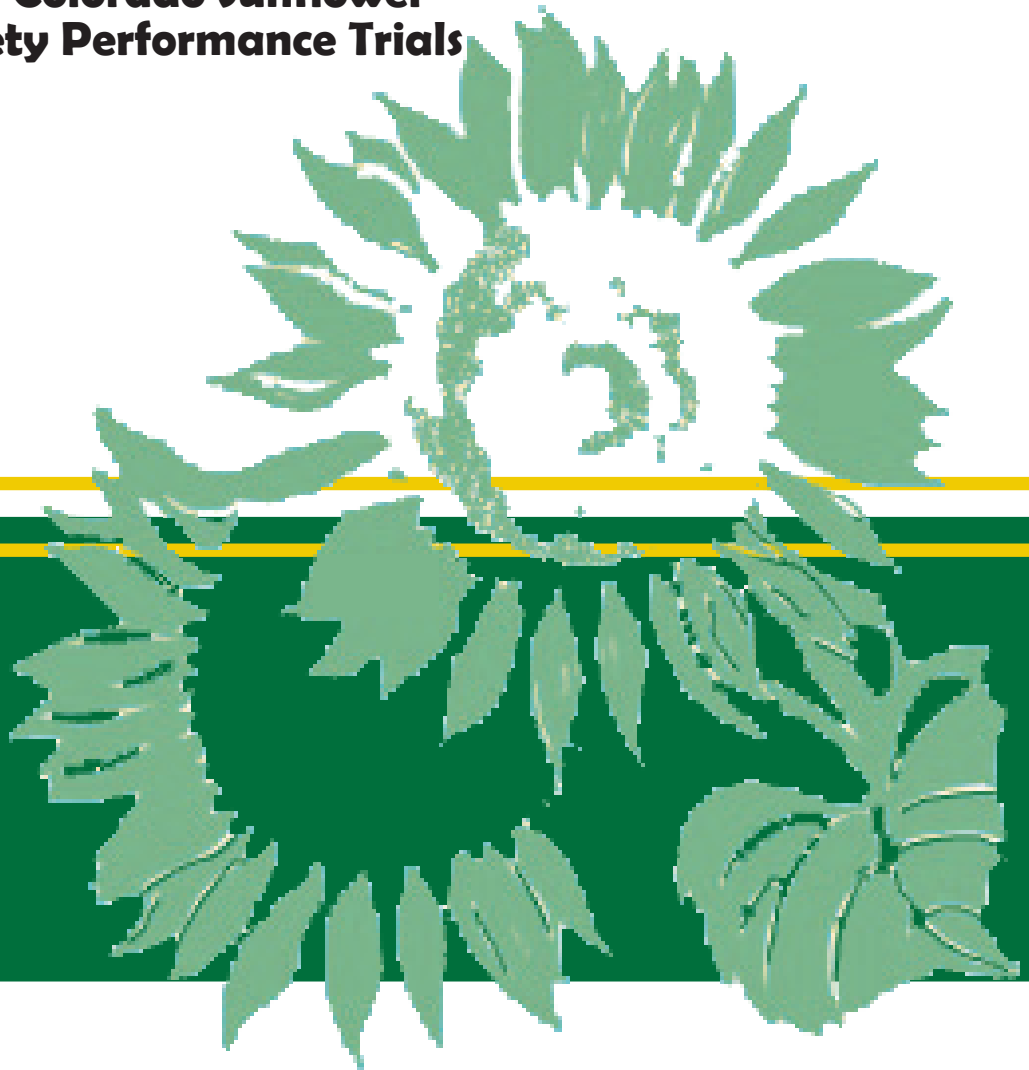
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Colorado State University

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Making Better Decisions

**2011 Colorado Sunflower
Variety Performance Trials**



Agricultural
Experiment Station

Department of
Soil & Crop Sciences

Extension

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Table of Contents

Acknowledgments.....	2
Authors.....	4
2011 Colorado Sunflower Hybrid Performance Trials.....	5
2011 Irrigated Oil Sunflower Performance Variety Trials at Idalia.....	6
2011 Irrigated Confection Sunflower Performance Variety Trials at Idalia.....	7
2011 Irrigated Oil Sunflower Performance Variety Trials at Stratton.....	8
2011 Irrigated Confection Sunflower Performance Variety Trials at Stratton.....	9
2011 Dryland Oil Sunflower Performance Variety Trials at Brandon.....	10
2011 Dryland Confection Sunflower Performance Variety Trials at Brandon.....	11
2011 Dryland Oil Sunflower Performance Variety Trials at Akron.....	12
2011 Dryland Confection Sunflower Performance Variety Trials at Akron.....	13
2011 Dryland Sunflower Performance Variety Trials at Yellow Jacket.....	14

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2011 Colorado Sunflower Hybrid Performance Trials

Introduction

CSU's Crops Testing personnel assist Colorado sunflower producers to make the best possible hybrid sunflower seed selection by providing unbiased and reliable yield trial results from oil and confection sunflower performance trials. Variable climatic conditions, innovations from plant breeding and biotechnology, acquisitions and mergers of seed companies, and rapid development of new hybrid lines means that unbiased crop performance information is increasingly important to Colorado sunflower producers.

Each year, Colorado sunflower producers purchase over \$4 million of seed which means that good variety performance information is essential to making better sunflower variety decisions.

Colorado State University personnel evaluated commercial oil and confection sunflower hybrids in eastern Colorado under irrigation at two locations and in two dryland locations. Sunflower hybrids were also tested on the Southwestern Colorado Research Center at Yellow Jacket. Viable results are in the following tables which are intended to be stand-alone and self-explanatory. Personnel salaries and operational costs for conducting these trials come from Colorado State University, the Colorado Sunflower Administrative Committee, and entry fees from sunflower seed companies.

Colorado Sunflower Trial Locations in 2011



2011 Irrigated Oil Sunflower Performance Variety Trial at Idalia

Source	Hybrid ^a	Yield lb/ac	Moisture percent	Test	Plant	Population plants/ac	Lodging percent	Oil Content percent
				Weight lb/bu	Height in			
Syngenta	3845 HO Coated	2756	6.0	27.0	64	19,229	5.0	41.0
Triumph Seed	TRXs11432CL	2581	7.8	27.6	59	21,733	3.3	41.3
Syngenta	3845 HO	2577	5.4	26.6	65	19,318	2.3	40.3
Mycogen Seeds	8H449CLDM	2534	7.8	29.4	71	20,731	0.3	41.6
Syngenta	3875	2441	7.4	27.8	70	20,258	4.7	38.5
Seeds 2000	X9822-CL, DMR	2422	9.8	28.5	65	21,196	3.7	39.9
Triumph Seed	TRX8341	2418	13.2	25.9	69	19,017	3.3	41.2
Triumph Seed	s673	2338	6.7	26.7	57	20,154	4.0	38.9
Mycogen Seeds	8N421CLDM	2260	8.3	26.6	71	21,279	2.7	38.6
Syngenta	3495 NS/CL/DM	2259	7.4	29.1	67	20,234	14.3	38.7
Triumph Seed	657	2252	8.9	24.3	81	15,637	1.7	40.2
Syngenta	4596 HO/DM	2237	7.3	28.7	79	19,626	4.3	40.3
Mycogen Seeds	8N510	2202	6.3	26.5	64	22,014	6.0	38.4
Seeds 2000	X9452-CL	2194	10.7	27.7	68	22,483	4.0	40.1
Croplan Genetics	548 CL DMR NS	2175	6.9	27.1	73	19,869	9.3	36.7
Croplan Genetics	356A NS	2160	6.4	28.2	64	20,163	7.3	39.2
Seeds 2000	Camaro-CL, DMR	2145	8.4	28.9	72	18,978	3.3	38.1
Triumph Seed	TRXs11431CL	2132	9.9	26.7	64	20,234	4.7	41.0
Seeds 2000	Torino-CL	2114	11.9	28.4	72	22,295	5.7	40.6
Triumph Seed	s668	2112	7.0	28.5	62	21,452	5.0	40.4
Syngenta	3733 NS Coated	2091	6.4	27.7	71	20,365	8.0	38.3
Croplan Genetics	442 E NS	2082	9.7	26.0	68	19,198	6.0	40.8
Syngenta	3158 NS/CL/DM	2050	7.3	27.6	64	19,204	6.0	38.3
Dahlgren & Co.	DO-2012CL	2033	7.6	28.2	65	19,059	8.3	40.7
Triumph Seed	s678	2022	11.4	28.9	70	19,525	4.3	42.7
Seeds 2000	Sierra	1978	10.9	24.8	69	20,828	4.3	37.8
Syngenta	3995 NS/SU	1945	7.0	26.3	64	19,077	7.0	37.5
Seeds 2000	Durango-XPS	1783	7.6	27.4	69	20,931	5.0	38.0
Syngenta	3733 NS/DM	1699	7.8	27.9	68	20,830	8.0	39.2
Mycogen Seeds	8N453DM	1688	7.0	28.8	76	21,490	2.3	42.5
Croplan Genetics	559 CL DMR NS	1589	7.9	27.4	79	21,777	7.0	39.5
Average		2170	8.2	27.5	68	20,264	5.2	39.7
^{b,c} LSD _{0.30}		226						
LSD _{0.05}		434						

^aYields corrected to 10% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety, but some collaborators find LSD_{0.05} useful

^cIf the difference between two hybrid yields equals or exceeds the LSD value, the difference is significant; if not, the difference is not significant.

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 31'

Site Information

Collaborator: Schulte Brothers

Planting Date: 6/8/2011

Seeding Rate: Overplanted and thinned to a target of 20,000 plants/acre

Harvest Date: 10/5/2011

Previous Crop: Wheat

Fertilizer: N-P (105-10) lb/ac

Herbicide: Spartan

2011 Irrigated Confection Sunflower Performance Variety Trial at Idalia

Source	Hybrid ^a	Yield lb/ac	Moisture percent	Test Weight lb/bu	Plant Height in	Population plants/ac	Lodging percent	Seed Size				
								Above 24/64	23/64 to 22/64	21/64 to 20/64	19/64 to 16/64	16/64 and below
								percent				
Triumph Seed	TRX10454C	2716	13.9	18.4	68	15,126	4.6	24.6	36.4	26.2	11.4	1.4
Seeds 2000	Sundance	2429	15.5	19.3	74	18,264	9.5	5.4	19.4	31.8	41.2	2.2
Seeds 2000	Panther II	2421	12.9	18.1	79	17,030	7.2	17.8	28.8	27.8	22.4	3.2
Dahlgren and Co.	EX-819	2114	15.1	16.0	81	17,930	12.3	23.8	22.6	30.6	19.6	3.4
Mycogen Seeds	8C451	2105	13.9	17.4	78	17,611	6.4	47.6	32.2	11.0	7.2	2.0
Seeds 2000	Jaguar II-CL	2103	18.9	16.6	74	17,693	14.2	40.2	31.4	19.4	7.8	1.2
Dahlgren and Co.	D-9579	2063	13.5	15.6	67	18,642	10.6	11.0	36.6	38.2	12.8	1.4
Seeds 2000	Jaguar-CL	1922	14.0	17.4	67	18,002	13.0	18.8	42.2	22.6	12.6	3.8
Triumph Seed	770CL	1917	18.9	17.4	83	17,786	12.7	39.2	31.0	20.6	8.4	0.8
Seeds 2000	X9674	1909	12.0	18.0	78	17,799	8.9	26.4	20.6	25.4	25.4	2.2
Red River Commodities	EX 1512	1872	12.8	17.1	81	18,038	5.4	11.0	20.4	34.6	30.0	4.0
Dahlgren and Co.	D-9530	1824	12.6	18.2	77	17,415	13.2	15.2	34.4	30.4	17.8	2.2
Dahlgren and Co.	D-9530CL	1768	11.4	18.2	78	19,204	14.8	12.0	29.2	36.4	20.4	2.0
Red River Commodities	2215	1764	12.0	18.8	78	17,892	11.0	10.2	29.8	37.2	21.8	1.0
Dahlgren and Co.	EX-610	1740	16.7	17.1	69	19,110	10.3	25.8	30.4	29.6	12.6	1.6
Red River Commodities	2215 CL	1722	12.0	17.6	81	19,017	6.0	8.2	31.6	38.0	19.4	2.8
Red River Commodities	8015	1564	13.2	15.4	73	18,253	10.5	19.4	33.0	32.4	14.2	1.0
Mycogen Seeds	8C410CL	1474	13.6	17.7	80	18,479	8.7	21.6	27.4	32.4	16.8	1.8
Dahlgren and Co.	EX06CL	1471	17.4	18.4	84	17,036	9.0	31.0	23.8	23.0	20.4	1.8
Triumph Seed	TRX9350C	1285	16.8	17.2	73	18,923	4.4	37.0	31.2	19.4	11.0	1.4
Red River Commodities	2217	1237	10.7	17.3	78	18,267	8.8	16.6	31.8	31.8	18.8	1.0
Triumph Seed	777C	981	14.2	17.3	83	17,237	17.0	17.8	36.2	28.2	15.8	2.0
Seeds 2000	Jaguar XL-CL	*	20.9	16.2	83	18,276	10.5	5.8	18.8	22.0	47.0	6.4
Average		1836	14.5	17.4	77	17,958	10.0	21.1	29.5	28.2	18.9	2.2
^{b,c} LSD _{0.30}		230										
LSD _{0.05}		452										

^aYields corrected to 10% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety but some collaborators find LSD_{0.05} useful

^cIf the difference between two hybrid yields equals or exceeds the LSD value, the difference is significant; if not, the difference is not significant.

*We were not able to obtain a reliable yield estimate for Jaguar XL-CL

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 31'

Site Information

Collaborator: Schulte Brothers
 Planting Date: 6/8/2011
 Seeding Rate: Overplanted and thinned to a target of 18,000 plants/acre
 Harvest Date: 10/6/2011
 Previous Crop: Wheat
 Fertilizer: N-P (105-10) lb/ac
 Herbicide: Spartan

2011 Irrigated Oil Sunflower Performance Variety Trial at Stratton

Source	Hybrid ^a	Yield lb/ac	Moisture percent	Test	Plant	Population plants/ac	Lodging percent	Oil Content percent
				Weight lb/bu	Height in			
Syngenta	3845 HO	2907	6.0	29.0	64	17,944	16.0	44.7
Triumph Seed	TRXs11431CL	2905	8.3	28.6	56	18,477	9.7	43.8
Syngenta	3875	2863	6.3	29.6	64	16,768	13.4	41.6
Mycogen Seeds	8N510	2805	6.5	28.9	62	18,829	15.9	42.2
Mycogen Seeds	8N453DM	2730	6.9	30.4	68	19,197	19.8	45.8
Triumph Seed	s678	2673	8.2	31.2	62	19,672	8.1	44.7
Triumph Seed	TRX8341	2630	10.3	29.1	62	15,269	10.9	44.3
Mycogen Seeds	8H449CLDM	2592	7.0	31.2	65	19,672	11.6	45.7
Triumph Seed	s673	2579	8.3	28.8	62	20,047	12.7	44.8
Triumph Seed	s668	2535	9.8	30.2	55	20,796	11.9	44.8
Croplan Genetics	559 CL DMR NS	2521	9.3	29.7	73	17,427	14.9	41.3
Triumph Seed	TRXs11432CL	2464	8.3	29.6	57	19,953	7.7	42.8
Triumph Seed	TRXs10424	2412	7.4	28.9	53	18,829	14.1	43.2
Seeds 2000	Torino-CL	2393	10.5	30.9	83	20,716	12.0	41.5
Syngenta	3733 NS/DM	2346	6.4	29.2	64	18,454	19.1	44.4
Seeds 2000	Camaro-CL, DMR	2339	7.7	31.0	66	21,021	8.9	41.5
Triumph Seed	660CL	2289	8.8	29.8	75	18,821	25.4	41.9
Triumph Seed	664	2265	8.8	29.9	71	17,492	13.1	44.8
Syngenta	4596 HO/DM	2210	8.0	31.1	73	17,049	25.6	43.5
Mycogen Seeds	8N421CLDM	2191	7.0	29.1	71	19,579	22.5	42.5
Seeds 2000	Durango-XPS	2172	7.8	29.5	65	19,866	14.3	40.7
Triumph Seed	859HCL	2165	8.4	29.6	71	19,064	20.6	42.6
Seeds 2000	X9452-CL	2156	7.1	30.0	61	21,265	10.5	42.0
Dahlgren & Co.	DO-2012CLDM	2137	7.0	30.1	67	20,347	12.6	43.0
Seeds 2000	Sierra	2128	10.8	26.5	73	21,035	19.8	41.4
Croplan Genetics	356A NS	2105	6.4	29.6	65	20,703	19.0	43.3
Syngenta	3845 HO Coated	2061	6.5	29.7	65	20,047	17.9	43.3
Syngenta	3733 NS Coated	2042	6.8	29.6	64	17,799	17.4	42.6
Croplan Genetics	442 E NS	1956	8.3	27.4	67	17,583	14.0	44.2
Syngenta	3995 NS/SU	1955	6.4	28.4	65	20,371	20.0	39.8
Seeds 2000	X9822-CL, DMR	1868	7.4	31.2	63	20,984	15.0	41.5
Syngenta	3158 NS/CL/DM	1790	7.0	29.2	68	18,829	21.4	43.5
Croplan Genetics	548 CL DMR NS	1769	6.9	29.6	61	18,361	17.9	39.9
Syngenta	3495 NS/CL/DM	1607	6.9	31.6	68	20,453	23.6	40.8
Average		2311	7.7	29.7	66	19,198	15.8	42.9
^{b,c} LSD _{0.30}		198						
LSD _{0.05}		381						

^aYields corrected to 10% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety, but some collaborators find LSD_{0.05} useful

^cIf the difference between two hybrid yields equals or exceeds the LSD value, the difference is significant; if not, the difference is not significant.

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 31'

Site Information

Collaborator: Galen Travis
 Planting Date: 6/5/2011
 Seeding Rate: Overplanted and thinned to a target of 19,000 plants/acre
 Harvest Date: 10/13/2011
 Previous Crop: Corn
 Fertilizer: N-P (45-20) lb/ac
 Herbicide: Spartan
 Insecticide: Warrior

2011 Irrigated Confection Sunflower Performance Variety Trial at Stratton

Source	Hybrid ^a	Yield lb/ac	Moisture percent	Test Weight lb/bu	Plant Height in	Population plants/ac	Lodging percent	Seed Size				
								Above 24/64	23/64 to 22/64	21/64 to 20/64	19/64 to 16/64	16/64 and below
Red River Commodities	2215 CL	2400	10.3	17.8	80	14,177	10.2	35.4	40.8	16.8	6.4	0.6
Mycogen Seeds	8C451	2200	9.3	18.8	84	14,240	12.7	11.4	43.4	30.2	12.8	2.2
Dahlgren & Co.	D-9579	2066	9.4	19.2	77	16,465	19.9	6.4	19.8	37.2	34.4	2.2
Dahlgren & Co.	EX06CL	2045	10.1	18.5	71	13,987	15.2	12.2	38.8	35.6	12.6	0.8
Red River Commodities	2217	1982	9.1	17.7	79	14,500	18.2	18.4	38.2	32.6	10.2	0.6
Dahlgren & Co.	D-9530	1941	10.1	18.9	76	14,577	13.0	13.0	28.4	35.8	21.2	1.6
Seeds 2000	X9674	1940	9.3	17.4	71	14,121	24.7	8.2	35.2	34.6	21.4	0.6
Triumph Seed	770CL	1894	9.2	18.0	74	14,443	16.1	26.8	34.4	29.2	8.2	1.4
Dahlgren & Co.	EX-819	1873	9.8	18.7	85	15,774	13.2	14.2	35.0	35.6	13.4	1.8
Dahlgren & Co.	EX-610	1853	9.0	18.7	77	14,975	13.9	10.6	28.8	39.8	19.2	1.6
Red River Commodities	EX 1512	1846	9.9	17.8	72	13,952	19.7	26.8	33.2	24.0	14.4	1.6
Red River Commodities	8015	1813	9.1	18.1	79	13,611	18.4	39.8	37.8	16.2	5.2	1.0
Seeds 2000	Jaguar II-CL	1752	9.2	18.3	75	15,041	14.8	7.4	28.8	38.0	23.4	2.4
Seeds 2000	Jaguar XL-CL	1730	11.8	17.4	76	13,893	12.2	34.0	36.6	20.8	8.2	0.4
Seeds 2000	Panther II	1728	10.3	18.4	71	15,632	12.6	15.2	25.8	32.6	24.4	2.0
Triumph Seed	777C	1629	9.2	18.3	74	16,113	19.8	20.2	38.8	30.2	9.8	1.0
Dahlgren & Co.	D-9530CL	1616	9.4	19.0	81	16,100	16.4	10.8	26.4	38.0	23.4	1.4
Red River Commodities	2215	1591	10.1	18.5	80	15,082	11.7	30.0	26.8	30.8	10.0	2.4
Seeds 2000	Jaguar-CL	1583	9.5	18.3	81	14,977	19.6	23.0	34.6	32.0	8.4	2.0
Mycogen Seeds	8C410CL	1437	11.1	18.1	83	14,693	13.5	24.2	30.8	30.6	13.2	1.2
Seeds 2000	Sundance	1408	9.7	18.7	82	15,419	13.6	14.6	34.6	32.0	17.2	1.6
Average		1825	9.8	18.3	77	14,846	15.7	19.2	33.2	31.1	15.1	1.4
^{b,c} LSD _{0.30}		235										
LSD _{0.05}		454										

^aYields corrected to 10% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety but some collaborators find LSD_{0.05} useful

^cIf the difference between two hybrid yields equals or exceeds the LSD value, the difference is significant; if not, the difference is not significant.

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 31'

Site Information

Collaborator: Galen Travis
 Planting Date: 6/5/2011
 Seeding Rate: Overplanted and thinned to a target of 15,000 plants/acre
 Harvest Date: 10/12/2011
 Previous Crop: Corn
 Fertilizer: N-P (45-20) lb/ac
 Herbicide: Spartan
 Insecticide: Warrior

2011 Dryland Oil Sunflower Performance Variety Trial at Brandon

Source	Hybrid ^a	Yield	Moisture	Test Weight	Plant Height	Population	Lodging	Oil Content
		lb/ac	percent	lb/bu	in	plants/ac	percent	percent
Triumph Seed	TRX8341	2232	15.7	23.7	53	11,810	4.7	40.1
Mycogen Seeds	8N453DM	2072	10.7	26.5	56	14,412	8.1	43.1
Syngenta	3875	2067	9.3	25.7	56	14,033	8.2	40.4
Syngenta	3733 NS Coated	2035	8.9	26.4	53	13,656	7.9	40.1
Triumph Seed	s678	2013	14.0	25.8	54	15,808	2.5	43.0
Syngenta	3733 NS/DM	1929	9.0	26.7	55	14,414	7.8	41.2
Triumph Seed	TRXs11431CL	1900	14.4	24.0	48	15,457	3.6	42.1
Triumph Seed	s668	1900	13.3	25.7	49	16,065	4.0	42.8
Mycogen Seeds	8H449CLDM	1885	12.8	26.2	56	12,801	2.1	41.7
Mycogen Seeds	8N510	1884	9.0	25.8	56	14,428	9.4	40.7
Triumph Seed	845	1858	12.2	23.3	64	14,667	8.0	42.1
Syngenta	3845 HO	1831	9.5	26.0	56	12,634	6.7	41.1
Triumph Seed	s673	1776	14.2	25.2	43	14,348	2.8	40.3
Seeds 2000	Torino-CL	1774	11.3	26.4	65	15,758	5.6	40.0
Mycogen Seeds	8N421CLDM	1707	11.6	24.7	61	12,197	7.0	40.0
Seeds 2000	X9452-CL	1650	11.8	25.0	55	15,565	10.2	38.3
Triumph Seed	TRXs11432CL	1647	12.0	24.8	46	15,670	3.4	41.2
Syngenta	3995 NS/SU	1645	9.8	24.2	56	13,558	8.4	36.8
Seeds 2000	Sierra	1634	13.6	23.5	64	15,916	10.2	37.9
Triumph Seed	859HCL	1601	12.3	24.9	61	14,670	12.5	40.1
Syngenta	3495 NS/CL/DM	1580	9.5	27.0	57	14,552	13.9	38.4
Triumph Seed	TRXs10429H	1549	12.0	24.1	50	15,567	3.9	41.4
Syngenta	4596 HO/DM	1530	14.0	27.1	62	11,184	8.2	38.7
Syngenta	3845 HO Coated	1525	9.4	26.4	51	13,172	9.3	40.1
Triumph Seed	s870HCL	1512	13.6	24.5	40	14,552	3.4	40.2
Dahlgren & Co.	DO-2012CL	1438	10.5	25.9	61	13,156	8.7	39.4
Syngenta	3158 NS/CL/DM	1398	10.0	26.0	56	14,604	17.4	40.2
Seeds 2000	Durango-XPS	1379	10.5	25.8	54	15,145	12.7	39.3
Seeds 2000	X9822-CL, DMR	1222	12.1	24.2	56	13,000	5.8	38.5
Average		1730	11.6	25.3	55	14,234	7.5	40.3
^{b,c} LSD _{0.30}		161						
LSD _{0.05}		307						

^aYields corrected to 10% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety, but some collaborators find LSD_{0.05} useful

^cIf the difference between two hybrid yields equals or exceeds the LSD value, the difference is significant; if not, the difference is not significant.

Experimental Design: randomized complete block design with four replications

Plot size: 5' x 31'

Site Information

Collaborator: Burl Scherler

Planting Date: 6/16/2011

Seeding Rate: Overplanted and thinned to a target of 14,000 plants/acre

Harvest Date: 10/11/2011

Previous Crop: Wheat

Fertilizer: Nitrogen at 70 lb/ac, plus starter fertilizer at planting

Herbicide: Medal at 1.3 pints/ac (generic S-metolachlor), Spartan at 2.7 pints/ac, and Roundup plus 2,4-D (three applications throughout growing season)

2011 Dryland Confection Sunflower Performance Variety Trial at Brandon

Source	Hybrid ^a	Yield lb/ac	Moisture percent	Test Weight lb/bu	Plant Height in	Population plants/ac	Lodging percent	Above	23/64	21/64	19/64	16/64
								24/64	to 22/64	to 20/64	to 16/64	and below
Seeds 2000	X9674	2151	12.1	17.4	62	12,692	11.2	31.0	29.0	24.8	14.8	0.4
Seeds 2000	Panther II	2069	13.8	17.5	63	12,722	9.0	28.0	40.6	21.4	9.0	1.0
Seeds 2000	Jaguar II-CL	2040	19.9	16.9	62	12,506	10.8	37.4	33.2	20.2	8.6	0.6
Triumph Seed	777C	1218	17.7	16.8	66	13,235	15.1	32.4	33.6	24.2	8.8	1.0
Average		1870	15.9	17.1	63	12,789	11.5	32.2	34.1	22.7	10.3	0.8
^{b,c} LSD _{0.30}		254										
LSD _{0.05}		1646										

^aYields corrected to 10% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety but some collaborators find LSD_{0.05} useful

^cIf the difference between two hybrid yields equals or exceeds the LSD value, the difference is significant; if not, the difference is not significant.

Experimental Design: randomized complete block design with four replications

Plot size: 5' x 31'

Site Information

Collaborator: Burl Scherler

Planting Date: 6/16/2011

Seeding Rate: Overplanted and thinned to a target of 13,000 plants/acre

Harvest Date: 10/11/2011

Previous Crop: Wheat

Fertilizer: Nitrogen (70 lb/ac), plus starter fertilizer at planting

Herbicide: Medal at 1.3 pints/ac (generic S-metolachlor), Spartan at 2.7 pints/ac, and Roundup plus 2,4-D (three applications throughout growing season)

2011 Dryland Oil Sunflower Performance Variety Trial at Akron

Source	Hybrid ^a	Yield lb/ac	Moisture percent	Test	Plant	Population plants/ac	Lodging percent	Oil Content percent
				Weight lb/bu	Height in			
Mycogen Seeds	8N510	886	4.9	27.2	59	16,105	16.7	36.2
Triumph Seed	TRX8341	857	6.5	27.8	61	13,576	20.8	38.9
Seeds 2000	Sierra	752	7.1	27.3	60	15,337	11.1	34.9
Seeds 2000	X9452-CL	730	5.5	28.5	56	15,993	14.5	37.3
Mycogen Seeds	8H449CLDM	721	5.2	29.3	57	15,843	9.0	39.1
Triumph Seed	TRXs11431CL	709	8.8	28.8	50	13,142	9.6	40.6
Triumph Seed	s668	704	9.3	28.7	50	16,501	14.7	43.6
Mycogen Seeds	8N453DM	701	6.7	30.1	62	17,002	18.1	40.6
Triumph Seed	s673	695	6.1	28.4	50	15,200	14.0	39.2
Syngenta	4596 HO/DM	678	4.6	27.9	66	14,616	21.2	35.2
Seeds 2000	Torino-CL	639	5.7	29.5	61	16,226	12.3	37.4
Syngenta	3845 HO Coated	624	4.9	27.4	58	16,843	14.2	36.0
Syngenta	3875	623	5.4	27.3	61	12,272	17.2	36.0
Triumph Seed	s678	606	6.4	28.1	55	14,908	10.8	40.1
Syngenta	3733 NS/DM	603	4.8	28.4	52	14,939	25.2	37.7
Seeds 2000	X9822-CL, DMR	588	5.4	28.0	56	16,932	13.4	36.7
Syngenta	3845 HO	580	5.4	27.3	58	15,255	14.7	38.1
Syngenta	3995 NS/SU	560	5.3	27.4	58	13,341	21.8	35.4
Mycogen Seeds	8N421CLDM	557	4.9	28.3	60	16,710	16.5	37.5
Syngenta	3733 NS Coated	514	5.5	27.9	57	14,399	17.1	35.0
Syngenta	3158 NS/CL/DM	502	5.1	27.6	58	13,683	30.1	38.4
Triumph Seed	TRXs11432CL	494	6.3	28.9	48	14,024	16.0	37.6
Syngenta	3495 NS/CL/DM	475	5.0	27.8	60	14,235	25.0	36.6
Seeds 2000	Durango-XPS	289	5.8	28.8	51	17,846	14.3	37.5
Average		629	5.8	28.2	57	15,205	16.6	37.7
^{b,c} LSD _{0.30}		125						
LSD _{0.05}		239						

^aYields corrected to 10% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety, but some collaborators find LSD_{0.05} useful

^cIf the difference between two hybrid yields equals or exceeds the LSD value, the difference is significant; if not, the difference is not significant.

Experimental Design: randomized complete block design with four replications

Plot size: 5' x 31'

Site Information

Collaborator: Central Great Plains Research Station
 Planting Date: 6/7/2011
 Seeding Rate: Overplanted and thinned to a target of 15,000 plants/acre
 Harvest Date: 10/4/2011
 Previous Crop: Wheat
 Fertilizer: Nitrogen broadcast at 40 lb/ac
 Herbicide: Spartan and Roundup

2011 Dryland Confection Sunflower Performance Variety Trial at Akron

Source	Hybrid ^a	Yield lb/ac	Moisture percent	Test Weight lb/bu	Plant Height in	Population plants/ac	Lodging percent	Seed Size				
								Above 24/64	23/64 to 22/64	21/64 to 20/64	19/64 to 16/64	16/64 and below
Seeds 2000	Jaguar II-CL	1056	9.8	18.2	64	8,021	19.1	1.6	5.8	20.0	66.2	6.4
Triumph Seed	770CL	965	14.0	20.9	70	11,182	10.4	0.4	7.6	26.2	56.0	9.8
Seeds 2000	Sundance	961	10.9	18.8	70	9,648	23.4	1.6	3.6	17.4	65.2	12.2
Seeds 2000	Panther II	958	10.2	18.1	64	9,123	22.7	3.4	8.8	26.0	52.2	9.6
Triumph Seed	777C	717	11.1	18.2	73	10,946	24.0	1.4	10.4	29.8	51.0	7.4
Seeds 2000	Jaguar-CL	682	9.3	17.5	59	9,718	16.2	7.6	19.4	26.2	41.4	5.4
Seeds 2000	X9674	583	11.1	18.2	67	11,307	18.7	1.6	6.4	24.4	58.4	9.2
Average		846	10.9	18.5	67	9,992	19.2	2.5	8.9	24.3	55.8	8.6
^{b,c} LSD _{0.30}		105										
LSD _{0.05}		208										

^aYields corrected to 10% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety but some collaborators find LSD_{0.05} useful

^cIf the difference between two hybrid yields equals or exceeds the LSD value, the difference is significant; if not, the difference is not significant.

Experimental Design: randomized complete block design with four replications

Plot size: 5' x 31'

Site Information

Collaborator: Central Great Plains Research Station

Planting Date: 6/7/2011

Seeding Rate: Overplanted and thinned to a target of 10,000 plants/acre

Harvest Date: 10/14/2011

Previous Crop: Wheat

Fertilizer: Nitrogen broadcast at 40 lb/ac

Herbicide: Spartan and Roundup

2011 Dryland Sunflower Performance Variety Trial at Yellow Jacket

Source	Hybrid	Oil type	Adjusted Yield lb/ac	Seed moisture percent	Test weight lb/bu	Plant Height in	Plants at harvest plants/ac ^a	Seed Oil Content percent
Triumph Seed	s678	NuSun	1571	7.8	28.9	35	10,541	37.3
Syngenta Seed	4596 HO/DM	High Oleic	1483	7.1	29.5	47	9,439	35.7
Pioneer Hi-Bred	P63ME80	Nusun (mid-oleic)	1463	6.9	28.5	45	9,402	37.7
Syngenta Seed	3733 NS/DM	NuSun	1456	6.5	29.3	36	10,171	37.3
Triumph Seed	s673	NuSun	1449	6.8	29.3	32	9,635	38.9
Mycogen Seeds	8H449CLDM	High Oleic	1386	6.7	31.2	41	8,988	38.2
Triumph Seed	s671	NuSun	1386	6.9	29.5	30	11,179	37.2
Pioneer Hi-Bred	P63HE60	High Oleic	1324	6.6	27.6	41	10,241	35.6
Triumph Seed	TRXs10429H	High Oleic	1303	6.8	29.6	31	10,033	37.5
Syngenta Seed	3845 HO	High Oleic	1301	6.4	28.9	35	7,869	38.2
Triumph Seed	s870HCL	High Oleic	1221	6.8	29.1	30	9,663	37.4
Triumph Seed	s668	NuSun	1196	7.1	27.8	29	10,495	35.7
Triumph Seed	859HCL	High Oleic	1173	7.3	27.2	43	8,607	34.9
Pioneer Hi-Bred	P63ME70	NuSun (mid-oleic)	1158	6.7	25.9	44	9,395	35.2
Mycogen Seeds	8H288CLDM	High Oleic	1105	6.2	30.1	39	10,715	39.5
Pioneer Hi-Bred	63M91	NuSun (mid-oleic)	1090	6.5	29.6	47	8,435	38.5
Syngenta Seed	3495 NS/CL/DM	NuSun	1083	6.8	29.2	43	9,744	36.2
Syngenta Seed	3995 NS/SU	NuSun	941	6.5	29.2	36	10,131	36.2
Average			1283	6.8	28.9	38	9,705	37.1
CV (%)			12	5.5	3.2	3	13	3.0
^{b,c} LSD _{0.30}			134	0.3	0.8	1	1,110	0.9
LSD _{0.05}			258	0.6	1.5	2	NS	1.6

^aNumber of plants with harvestable heads

^bLSD_{0.30} is most useful for producers using these results to select a variety, but some collaborators find LSD_{0.05} useful

^cIf the difference between two hybrid yields equals or exceeds the LSD value, the difference is significant; if not, the difference is not significant.

Plot size and replications: 10' by 60' with three replications

Site Information

Collaborator: Southwestern Colorado Research Center
 Planting Date: 5/31/2011
 Harvest Date: 11/3/2011
 Planting equipment: Monosem Pneumatic Planter
 Seeding rate: 17,289 seeds/acre
 Seed spacing: 12.1 inches
 Row spacing: 30 inches
 Tillage: Cultivator used on April 15th, April 20th, and July 5th
 Fertilizer: 60 lb/ac P₂O₅ on 4/15/11
 Herbicide: Sonalan at 2.4 pt/ac on 4/19/11
 Hoeing: 5/26/11 and 7/29/11

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Extension
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A handwritten signature in black ink, appearing to read "Jerry Johnson". The signature is written in a cursive style.

Jerry Johnson, Extension Specialist Crop Production

<http://www.csucrops.com>