

# MAKING BETTER DECISIONS

2001 Colorado Sunflower Performance Trials



Agricultural Experiment Station

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## KNOW YOUR SUNFLOWER IMPROVEMENT TEAM

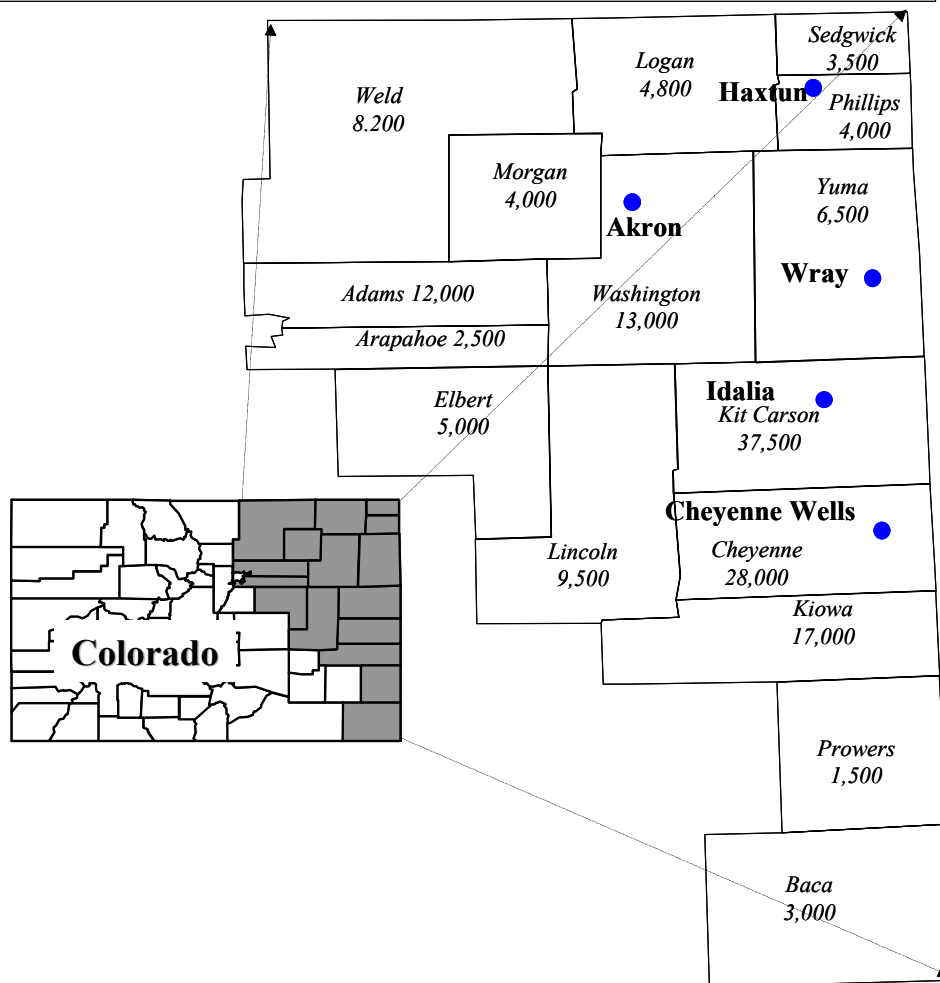
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### • Five Colorado Sunflower Trial Locations in 2001 with 2000 acreage harvested



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## 2001 COLORADO SUNFLOWER PERFORMANCE TRIALS

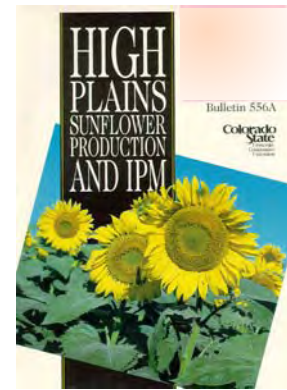
### Introduction

Colorado is the 4<sup>th</sup> largest producer of sunflowers in the U.S., producing 150 million pounds of seed on 185,000 acres in 2000, and requiring an estimated \$2.3 million worth of hybrid seed to plant this acreage. To assist Colorado sunflower producers to make the most informed hybrid sunflower seed decision, CSU personnel evaluate commercial sunflower hybrids at five locations in northeastern Colorado.

### The 2001 Cropping Season

The results of our 2001 dryland sunflower oil and confection trials at Akron, Cheyenne Wells, Haxtun, and Wray are shown below. The 2001 irrigated sunflower trial was located at Idalia. Early and mid-season drought severely handicapped dryland yields, especially at Haxtun, Cheyenne Wells, and Wray. Haxtun had irregular and variable plant populations and the plots had to be hand harvested to a uniform population of 15,000 heads per acre. In addition to drought, deer feeding in plots reduced stands at the Wray site leading to variable harvest stands. The soil at the Cheyenne Wells trial became so dry that a cultivator tool could not be used and all plots had to be hand weeded.

A randomized complete block design with four replicates was used for all trials. All plots were 2-rows wide (30" spacing between rows) and 50' long. Oil hybrids were seeded at 19,000 seeds/acre under dryland conditions and at 24,000 seeds/acre under irrigation. Confection hybrids were planted at 15,000 seeds/acre under dryland conditions and at 17,000 seeds/acre under irrigation. Seed yields are reported in pounds per acre adjusted to 10% moisture content. Oil content is reported as % oil at 10% seed moisture content.



Information regarding sunflower production practices and pest control can be obtained from the following source: "High Plains Sunflower Production and IPM," Bulletin No. 556A, Colorado State University Cooperative Extension, Fort Collins, 80523. Call CERC at (970) 491-6198 to order your copy.

**Table 1. Cultural conditions for sunflower testing in 2001.**

	<b>Akron</b>	<b>Cheyenne Wells</b>	<b>Haxtun</b>	<b>Idalia</b>	<b>Wray</b>
Soil Type	Ascalon Sandy Loam	Kieth-Ulysses Silt Loam	Rago Loam	Colby Silt Loam	Colby Silt Loam
Previous Crop	Corn	Wheat	Wheat	Alfalfa	Wheat
Fertilization					
N acre <sup>-1</sup>	40	50	35	60	0
P <sub>2</sub> O <sub>5</sub> acre <sup>-1</sup>	0	0	0	70	0
Herbicide	Roundup Spartan	Fallow Master	Roundup Spartan Prowl	Roundup Spartan Prowl	Roundup
Insecticide	None	Warrior	None	None	None
Irrigation	None	None	None	Furrow	None

**Table 2. Dryland oil sunflower performance at Akron<sup>1</sup> in 2001.**

Hybrid	Test		Plant				
	Yield	Weight	Height	Density	Lodging	Bloom <sup>2</sup>	Oil
	lb/ac	lb/bu	in	plants/ac	%	date	%
Garst/Interstate F84021	1543	30.4	56	12205	1	230	34.30
Croplan 821	1351	27.0	54	8992	0	230	32.05
Novartis NK Brand 278	1288	28.1	57	11932	2	230	35.61
Novartis NK Brand T46-R9	1271	28.1	60	12696	0	230	31.91
Garst/Interstate IS 6767	1260	30.5	57	13196	1	230	34.91
Cargill SF260	1170	30.2	52	14005	1	230	36.92
DEKALB DK3900	1160	31.6	48	13866	0	231	35.63
Novartis NX30002	1118	29.3	57	9976	1	230	31.97
Mycogen Cavalry	1100	30.1	57	13462	0	230	36.38
Garst/Interstate IS 4049	1052	29.6	49	13867	1	231	35.00
Mycogen 8488 NS	1017	31.8	53	13810	0	230	35.41
DEKALB DKF36-40 NS	997	29.2	56	11053	0	229	33.18
Pioneer brand 63M91	964	29.7	55	11384	1	230	35.83
Pioneer brand 63M80	963	27.9	56	9708	1	231	33.38
Monsanto EX3804NS	946	28.8	56	13229	0	229	31.81
Mycogen 8377 NS	912	28.9	52	10748	0	230	33.77
Pioneer brand 63A70	876	28.1	52	12700	0	230	34.71
Cargill SF187	829	28.8	49	13437	0	230	33.77
Garst/Interstate IS 4340	771	31.1	49	12110	0	231	35.06
Garst/Interstate IS 5331	680	29.9	48	11759	0	230	34.16
<b>Average</b>	<b>1063</b>	<b>29.5</b>	<b>54</b>	<b>12207</b>	<b>1</b>	<b>230</b>	<b>34.29</b>
LSD <sub>(0.30)</sub>	201						

<sup>1</sup>Trial conducted on the Jason Shook farm; planted 6/18 and harvested 10/31.<sup>2</sup>Julian date.**Table 3. 2-Yr average dryland oil sunflower performance at Akron, 2000-01.**

Hybrid	Test	
	Yield	Weight
	lb/ac	lb/bu
Garst/Interstate IS 6767	1353	27.4
DEKALB DK3900	1217	28.3
Pioneer brand 63M80	1147	25.6
Mycogen 8377 NS	1118	26.8
Garst/Interstate IS 4340	1114	26.0
Pioneer brand 63A70	1086	25.7
Pioneer brand 63M91	1085	27.7
Garst/Interstate IS 4049	1065	26.8
DEKALB DKF36-40 NS	1001	26.9
<b>Average</b>	<b>1132</b>	<b>26.8</b>

**Table 4. Dryland oil sunflower performance at Cheyenne Wells<sup>1</sup> in 2001.**

Hybrid	Test		Plant			
	Yield	Weight	Height	Density	Lodging	Oil
	lb/ac	lb/bu	in	plants/ac	%	%
Triumph 665	919	29.5	48	13025	1	37.98
Kaystar 9501	918	30.6	44	11933	3	36.45
Proseed 9612	867	30.0	50	12691	3	38.34
DEKALB DK3900	795	30.4	40	11993	6	37.37
Pioneer brand 63A70	787	28.6	46	11613	4	39.23
Proseed 9405 Nu	730	29.2	47	10881	2	37.80
Triumph 658	726	29.8	45	10749	4	38.09
Mycogen 8377 NS	723	29.3	50	12315	2	38.76
Pioneer brand 63M80	710	29.1	46	9740	3	38.86
Kaystar 2020NS	685	29.8	39	13609	0	38.05
Cargill SF260	684	28.4	42	12542	4	38.80
DEKALB DKF36-40 NS	652	30.6	54	12570	3	36.77
Seeds 2000 Maverick	650	29.6	42	12777	2	38.34
Cargill SF187	645	30.0	41	12995	2	37.25
Seeds 2000 Bronco	636	30.3	41	12841	2	37.91
Proseed 9123 Nu	627	29.1	42	9520	4	38.12
Mycogen Cavalry	617	31.2	50	12310	3	39.45
Monsanto EX3804NS	559	29.6	51	13451	1	37.22
Pioneer brand 63M91	559	29.5	41	11514	4	38.92
Mycogen 8488 NS	555	30.1	42	13836	1	38.85
Proseed 99-14 Nu	525	29.6	49	11534	3	37.81
Seeds 2000 Blazer	506	29.1	40	10523	5	38.95
Proseed 99-90 Nu	471	29.7	42	9122	2	37.40
Seeds 2000 Ranger	470	30.1	44	10082	4	37.43
<b>Average</b>	<b>667</b>	<b>29.7</b>	<b>45</b>	<b>11840</b>	<b>3</b>	<b>38.09</b>
LSD <sub>(0.30)</sub>	126					

<sup>1</sup>Trial conducted on the Dennis Campbell farm; planted 6/8 and harvested 10/9. Trial suffered from early season drought. Plots hand-weeded but weeds influenced yields.

**Table 5. 2-Yr average dryland oil sunflower performance at Cheyenne Wells, 2000-01.**

Hybrid	Test	
	Yield	Weight
	lb/ac	lb/bu
Seeds 2000 Bronco	925	29.6
Kaystar 9501	910	29.1
Pioneer brand 63A70	876	28.4
Pioneer brand 63M80	873	28.7
DEKALB DK3900	859	29.8
Pioneer brand 63M91	850	29.1
Mycogen Cavalry	827	30.9
Seeds 2000 Maverick	771	29.1
DEKALB DKF36-40 NS	752	29.9
<b>Average</b>	<b>849</b>	<b>29.4</b>

**Table 6. Dryland oil sunflower performance at Haxtun<sup>1</sup> in 2001.**

Hybrid	Yield	Test Weight	Plant Height	Oil
	lb/ac	lb/bu	in	%
Pioneer brand 63M80	1150	25.6	66	34.10
Triumph 658	1145	22.2	68	31.95
Pioneer brand 63M91	1143	26.1	63	33.12
Croplan CL322 NS	1087	26.8	64	30.47
DEKALB DKF36-40 NS	1059	28.2	64	31.24
Pioneer brand 63A70	1055	24.4	64	34.89
Proseed 9612	1000	26.7	67	31.97
Novartis NK Brand 278	957	26.0	66	33.41
Novartis NK Brand T46-R9	931	25.3	67	30.37
Novartis NX30002	851	27.2	65	30.81
Croplan CL380 NS	835	29.2	62	32.19
Proseed 9123 Nu	834	24.0	66	33.41
DEKALB DK3900	798	28.6	64	33.53
Triumph 665	776	27.7	65	34.83
Monsanto EX3804NS	761	26.0	64	29.12
Proseed 99-14 Nu	735	25.4	66	34.48
Proseed 9405 Nu	649	25.5	67	34.54
Croplan CL385 NS	633	25.3	68	30.89
Proseed 99-90 Nu	540	26.4	65	31.25

<sup>1</sup>Trial conducted on the Richard Fryrear farm; planted 6/11 and harvested 10/15. Plant stands highly variable. Plot were hand harvested to a uniform population of 15,000 heads per acre.

**Table 7. Dryland oil sunflower performance at Wray<sup>1</sup> in 2001.**

Hybrid	Test		Plant	Density	Lodging	Oil
	Yield	Weight	Height			
	lb/ac	lb/bu	in	plants/ac	%	%
Proseed 9612	1014	29.3	68	13483	3	32.97
Kaystar 9501	986	28.9	64	14692	2	31.73
Pioneer brand 63A70	977	27.5	62	12370	0	32.62
DEKALB DKF36-40 NS	904	29.0	63	15483	3	32.16
Proseed 9405 Nu	870	29.2	64	11103	1	34.34
Triumph 665	867	28.1	68	15300	1	31.91
Croplan CL380 NS	860	29.2	63	15044	2	32.75
Cargill SF260	837	27.8	54	14158	3	34.49
Pioneer brand 63M91	836	28.0	58	14306	3	32.98
Mycogen 8488 NS	791	30.4	62	12112	1	33.99
Proseed 99-14 Nu	779	28.7	58	13558	1	33.75
Monsanto EX3804NS	751	28.8	63	13711	0	31.25
Mycogen Cavalry	737	29.3	64	13664	1	32.81
Kaystar 9404	722	27.5	62	15228	3	31.57
Pioneer brand XF306	669	27.7	59	14609	4	33.87
Pioneer brand 63M80	643	27.7	63	11668	0	32.53
Proseed 9123 Nu	615	28.7	56	9474	0	33.01
DEKALB DK3900	614	28.7	55	12507	2	33.76
Croplan CL322 NS	614	28.1	62	14270	2	32.57
Kaystar 2020NS	598	29.2	56	14096	1	34.88
Pioneer brand XF3920	586	29.5	66	12598	2	30.16
Croplan CL385 NS	516	28.2	53	15040	4	34.40
Triumph 658	500	28.1	64	12746	3	33.11
Proseed 99-90 Nu	438	28.0	52	11316	4	32.99
<b>Average</b>	<b>738</b>	<b>28.6</b>	<b>61</b>	<b>13439</b>	<b>2</b>	<b>32.94</b>
LSD <sub>(0.30)</sub>	123					

<sup>1</sup>Trial conducted on the Jim Roberts farm; planted 6/11 and harvested 10/11.

**Table 8. 2-Yr average dryland oil sunflower performance at Wray, 2000-01.**

Hybrid	Test	
	Yield	Weight
	lb/ac	lb/bu
Pioneer brand 63A70	1106	26.3
Kaystar 9501	1075	28.3
Pioneer brand 63M91	1051	26.6
DEKALB DK3900	975	28.6
Pioneer brand 63M80	955	27.3
DEKALB DKF36-40 NS	932	28.8
Kaystar 9404	848	24.3
<b>Average</b>	<b>991</b>	<b>27.1</b>



**Table 9. Irrigated oil sunflower performance at Idalia<sup>1</sup> in 2001.**

Hybrid	Test		Plant			
	Yield	Weight	Height	Density	Lodging	Oil
	lb/ac	lb/bu	in	plants/ac	%	%
Kaystar 9501	2173	34.4	65	14015	15	30.44
Cargill SF187	2009	31.3	54	15660	8	31.42
Seeds 2000 Bronco	1987	32.8	54	14556	9	33.39
Kaystar 9404	1901	33.3	59	14138	13	33.26
Seeds 2000 Blazer	1877	31.9	50	13013	13	34.38
Garst/Interstate F84021	1828	33.8	60	14640	14	33.62
Mycogen Cavalry	1811	34.9	58	16116	8	34.63
Proseed 9612	1804	33.1	61	15255	13	29.57
Cargill SF260	1765	32.6	53	15413	9	36.39
Triumph TRX1442	1755	30.0	62	12037	34	34.91
Triumph 658	1748	30.7	62	12955	25	36.57
Garst/Interstate IS 4049	1747	30.9	58	14741	9	31.53
Proseed 9405 Nu	1741	30.1	58	14646	11	33.80
Mycogen 8488 NS	1691	34.2	60	14702	12	33.94
Triumph 636	1644	28.3	61	10463	20	33.93
Garst/Interstate IS 4340	1639	34.1	60	13738	4	33.49
Garst/Interstate IS 5331	1634	32.2	48	12408	13	33.57
Seeds 2000 Ranger	1615	32.4	57	13539	9	33.34
Garst/Interstate IS 6767	1568	32.2	54	11695	10	32.90
Pioneer brand 63M91	1539	33.6	56	13155	6	34.00
DEKALB DK3900	1538	31.7	55	11308	21	32.66
Pioneer brand XF3920	1472	34.3	55	11580	17	36.05
Seeds 2000 Maverick	1455	32.6	57	13344	13	33.08
Triumph 665	1350	31.0	58	12575	24	34.84
Proseed 9123 Nu	1326	28.7	58	12394	17	32.72
Proseed 99-90 Nu	1185	30.8	60	12398	14	32.96
Pioneer brand 63M80	1182	31.1	53	9864	13	31.75
Pioneer brand 63A70	1182	31.2	51	10690	25	34.31
Proseed 99-14 Nu	1181	30.1	57	12647	13	33.19
Pioneer brand XF306	1150	31.1	53	11404	23	34.03
Mycogen 8377 NS	1128	32.1	51	13676	7	34.45
DEKALB DKF36-40 NS	1102	32.8	57	13972	13	31.05
Monsanto EX3804NS	991	32.3	51	14659	11	31.51
<b>Average</b>	<b>1567</b>	<b>32.0</b>	<b>57</b>	<b>13254</b>	<b>14</b>	<b>33.38</b>
LSD <sub>(0.30)</sub>	237					

<sup>1</sup>Trial conducted on the Dennis Towns farm; planted 5/24 and harvested 10/8.

**Table 10. 2-Yr average irrigated oil sunflower performance at Idalia, 2000-01.**

Hybrid	Test	
	Yield	Weight
	lb/ac	lb/bu
Mycogen Cavalry	2081	30.1
Kaystar 9501	2080	31.5
Kaystar 9404	1942	29.8
Garst/Interstate IS 4049	1853	29.9
Pioneer brand 63M91	1838	30.5
Mycogen 8488 NS	1773	31.2
Garst/Interstate IS 6767	1749	29.5
DEKALB DK3900	1743	29.8
Seeds 2000 Bronco	1557	31.0
Garst/Interstate IS 4340	1506	32.4
DEKALB DKF36-40 NS	1475	29.6
Seeds 2000 Maverick	1413	29.1
Pioneer brand 63M80	1387	27.7
Pioneer brand 63A70	1343	29.5
<b>Average</b>	<b>1696</b>	<b>30.1</b>

**Table 11. Dryland confection sunflower performance at Akron<sup>1</sup> in 2001.**

Hybrid	Test		Plant			
	Yield	Weight	Height	Density	Lodging	Bloom <sup>2</sup>
	lb/ac	lb/bu	in	plants/ac	%	date
Seeds 2000 Kodiak	943	26.3	60	12414	1	230
Seeds 2000 X3987	901	22.6	55	11686	1	232
Triumph 777C	866	23.0	62	11150	1	233
Triumph 700CLS	847	23.7	54	9126	0	234
Sigco Sun EXP396	811	22.5	57	11173	0	232
Red River RRC 2582	799	23.0	51	11500	2	232
Royal Hybrid 118	765	24.0	59	11213	0	231
Red River RRC 2413	732	22.4	51	10742	2	232
Royal Hybrid 3738	731	22.0	57	10851	2	231
Seeds 2000 X3983	700	23.5	53	9188	0	233
Red River RRC 2213	655	22.4	58	11642	0	231
Royal Hybrid 3708	630	25.0	55	11469	1	231
Sigco Sun Rustler	602	23.0	55	10831	0	232
Sigco Sun EXP3993	587	23.2	56	11684	0	234
Seeds 2000 Grizzly	577	23.0	50	11702	1	231
<b>Average</b>	<b>743</b>	<b>23.3</b>	<b>56</b>	<b>11091</b>	<b>1</b>	<b>232</b>
LSD <sub>(0.30)</sub>	165					

<sup>1</sup>Trial conducted on the Jason Shook farm; planted 6/18 and harvested 10/31.

<sup>2</sup>Julian date.

**Table 12. 2-Yr average dryland confection sunflower performance at Akron, 2000-01.**

Hybrid	Test	
	Yield	Weight
	lb/ac	lb/bu
Sigco Sun EXP3993	1215	19.1
Red River RRC 2582	1082	21.5
Red River RRC 2413	929	20.2
Red River RRC 2213	916	20.4
<b>Average</b>	<b>1035</b>	<b>20.3</b>

**Table 13. Dryland sunflower confection at Akron in 2001, percent of seed by screen size.**

Hybrid	Percent		Jumbo
	above 20/64	below 20/64	Percent above 22/64
Red River RRC 2213	21.0	79.0	4.5
Red River RRC 2413	21.4	78.6	2.9
Red River RRC 2582	20.5	79.5	4.9
Royal Hybrid 118	11.8	88.2	3.2
Royal Hybrid 3708	23.0	77.0	5.6
Royal Hybrid 3738	29.7	70.3	7.1
Seeds 2000 Grizzly	12.3	87.7	1.7
Seeds 2000 Kodiak	22.0	78.0	5.0
Seeds 2000 X3983	16.6	83.4	4.2
Seeds 2000 X3987	15.2	84.8	2.5
Sigco Sun EXP396	19.0	81.0	6.7
Sigco Sun EXP3993	15.0	85.0	3.2
Sigco Sun Rustler	21.4	78.6	6.0
Triumph 777C	23.0	77.0	5.9
Triumph 700CLS	24.0	76.0	11.3

**Table 14. Dryland confection sunflower performance at Cheyenne Wells<sup>1</sup> in 2001.**

Hybrid	Yield	Test	Plant	Density	Lodging
		Weight	Height		
	lb/ac	lb/bu	in	plants/ac	%
Triumph 700CLS	825	23.3	44	7792	3
Triumph 777C	797	23.4	48	8385	3
Sigco Sun Rustler	794	25.0	48	10272	1
Sigco Sun EXP3993	759	23.8	46	8535	1
Triumph TRX0451CRT	694	23.2	51	9919	7
Sigco Sun EXP396	613	24.2	44	9811	1
<b>Average</b>	<b>747</b>	<b>23.8</b>	<b>47</b>	<b>9119</b>	<b>2</b>
LSD <sub>(0.30)</sub>	164				

<sup>1</sup>Trial conducted on the Dennis Campbell farm; planted 6/8 and harvested 10/9. Trial suffered from prolonged early season drought. Plot hand-weeded but weeds influenced yields.

**Table 15. 2-Yr average dryland confection sunflower performance at Cheyenne Wells, 2000-01.**

Hybrid	Test	
	Yield	Weight
	lb/ac	lb/bu
Sigco Sun EXP3993	1139	21.8

**Table 16. Dryland sunflower confection at Cheyenne Wells in 2001, percent of seed by screen size.**

Hybrid	Percent	Percent	Jumbo
	above 20/64	below 20/64	Percent above 22/64
Sigco Sun EXP396	35.4	64.6	15.3
Sigco Sun EXP3993	17.8	82.2	5.7
Sigco Sun Rustler	23.2	76.8	8.5
Triumph TRX0451CRT	18.1	81.9	5.5
Triumph 777C	31.9	68.1	9.1
Triumph 700CLS	25.1	74.9	6.5

**Table 17. Dryland confection sunflower performance at Wray<sup>1</sup> in 2001.**

Hybrid	Plant		
	Height	Density	Lodging
	in	plants/ac	%
Red River RRC 2582	62	10704	3
Red River RRC 2213	63	14336	2
Triumph 777C	61	13637	0
Triumph TRX0451CRT	59	13739	0
Red River RRC 2413	61	12424	0
<b>Average</b>	<b>61</b>	<b>12968</b>	<b>1</b>

<sup>1</sup>Trial conducted on the Jim Roberts farm; planted 6/11 and harvested 10/11. Yield results are not reported due to an excessively variation.

**Table 18. Dryland sunflower confection at Wray in 2001, percent of seed by screen size.**

Hybrid	Percent	Percent	Jumbo
	above 20/64	below 20/64	Percent above 22/64
Red River RRC 2213	16.0	84.0	4.0
Red River RRC 2413	24.5	75.5	5.5
Red River RRC 2582	21.1	78.9	7.2
Triumph TRX0451CRT	26.9	73.2	8.4
Triumph 777C	34.1	65.9	6.5

**Table 19. Irrigated confection sunflower performance at Idalia<sup>1</sup> in 2001.**

Hybrid	Yield	Test Weight	Plant Height	Density	Lodging
Sigco Sun EXP3993	2217	25.0	74	13424	12
Seeds 2000 X3987	2090	25.5	63	13930	10
Triumph 777C	1904	23.2	68	12537	16
Seeds 2000 Grizzly	1787	24.9	64	14534	17
Triumph 700CLS	1732	22.5	70	11452	11
Sigco Sun EXP396	1702	25.2	69	12320	9
Triumph TRX0451CRT	1432	24.9	72	12655	21
Royal Hybrid 3738	1338	26.0	68	12977	16
Red River RRC 2213	1337	26.7	62	13784	23
Sigco Sun Rustler	1332	26.5	59	13245	14
Royal Hybrid 118	1331	25.4	68	14205	15
Sigco Sun EXP392	1330	26.9	70	14000	20
Red River RRC 2413	1280	25.5	65	12720	21
Red River RRC 2582	1271	26.6	59	13390	17
Garst/Interstate F89008	1251	25.7	69	12754	19
Interstate IS 8048	1053	26.1	63	13199	5
Royal Hybrid 3708	929	24.7	59	11758	20
<b>Average</b>	<b>1489</b>	<b>25.4</b>	<b>66</b>	<b>13111</b>	<b>16</b>
LSD <sub>(0.30)</sub>	231				

<sup>1</sup>Trial conducted on the Dennis Towns farm; planted 5/24 and harvested 10/8.

**Table 20. 2-Yr average irrigated confection sunflower performance at Idalia, 2000-01.**

Hybrid	Test Weight	
	Yield lb/ac	lb/bu
Sigco Sun EXP3993	2223	21.7
Red River RRC 2213	1624	23.3
Triumph TRX0451CRT	1623	22.6
Red River RRC 2582	1547	23.2
Interstate IS 8048	1525	23.5
Red River RRC 2413	1308	22.7
<b>Average</b>	<b>1641</b>	<b>22.8</b>

**Table 21. Irrigated sunflower confection at Idalia in 2001, percent of seed by screen size.**

Hybrid	Percent		
	above 20/64	below 20/64	Jumbo above 22/64
Garst/Interstate F89008	73.2	26.8	55.5
Interstate IS 8048	73.4	26.6	46.1
Red River RRC 2213	56.4	43.6	23.8
Red River RRC 2413	66.1	33.9	37.3
Red River RRC 2582	66.2	33.8	34.1
Royal Hybrid 118	74.2	25.8	31.8
Royal Hybrid 3708	83.8	16.2	57.7
Royal Hybrid 3738	81.1	18.9	55.9
Seeds 2000 Grizzly	81.3	18.7	48.1
Seeds 2000 X3987	62.7	37.3	30.1
Sigco Sun EXP392	61.3	38.7	25.4
Sigco Sun EXP396	65.0	35.0	37.4
Sigco Sun EXP3993	58.3	41.7	25.0
Sigco Sun Rustler	78.9	21.1	44.5
Triumph TRX 0451CRT	59.4	40.6	24.7
Triumph 777C	86.6	13.4	64.6
Triumph 700CLS	87.4	22.6	63.7

## Seed Company Entrants in the 2001 Colorado Sunflower Performance Trials

Entrant	Brand/Hybrid	Address	Telephone
Agway, Inc.	Agway	220 Clement Avenue, Grandin, ND 58038	(701) 484-5128
Croplan Genetics	Croplan	PO Box 1291, Minot, ND 58702	(701) 852-3556
Garst/Interstate Seed Co	Garst/Interstate	PO Box 338, West Fargo, ND 58078	(701) 282-7423
Kaystar Seed	Kaystar	PO Box 947, Huron, SD 57350	(605) 352-8791
Monsanto	Monsanto/DEKALB	3100 Sycamore Road, Dekalb, IL 60115	(815) 758-3461
Mycogen Seeds	Mycogen	9330 Zionsville Rd., Indianapolis, IN 46268	(317) 337-4653
Pioneer Hi-Bred Int'l, Inc	Pioneer	210 Gateway Suite 300, Lincoln, NE 68505	(402) 467-5458
Proseed	Proseed	705 E. Brewster, Harvey, ND 58341	(701) 324-4177
Red River Commodities, Inc	Red River	1320 East College Drive, Colby, KS 67701	(785) 462-3911
SEEDS 2000	SEEDS 2000	PO Box 200, Breckenridge, MN 56520	(218) 643-2410
SIGCO Sun Products, Inc	SIGCO	PO Box 331, Breckenridge, MN 56520	(218) 643-8467
Syngenta Seeds	Northrup King	1060 Wheatland Drive, Buhler, KS 67522	(316) 543-2707
Triumph Seed Co, Inc	Triumph	PO Box 1050, Ralls, TX 79357	(800) 530-4789

### Entry Forms for 2002 Trials

Entry forms for 2002 trials may be obtained from the Department of Soil and Crop Sciences, Colorado State University, Cynthia Johnson, C-4 Plant Science Building, Fort Collins, CO 80523-1170; Telephone (970) 491-1914; Fax (970) 491-2758; e-mail [cjohnson@agsci.colostate.edu](mailto:cjohnson@agsci.colostate.edu) or web site <http://www.colostate.edu/Depts/SoilCrop/extension/CropVar/index.html>.

Additional copies of this report may be ordered from the Department of Soil and Crop Sciences, Colorado State University, Cynthia Johnson, C-4 Plant Science Building, Fort Collins, CO 80523-1170; Telephone (970) 491-1914; Fax (970) 491-2758; or e-mail [cjohnson@agsci.colostate.edu](mailto:cjohnson@agsci.colostate.edu).

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