PROJECT TITLE: 2000 Evaluation of oilseed crop species/varieties on dryland recrop in central Montana.

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OBJECTIVES:
To determine the yield potential of oilseed crops in central Montana and evaluate variety performance.

RESULTS:
Canola and safflower variety trials were established by no-till seeding on recrop following barley.

Safflower was hailed out just prior to flowering. Samples were harvested for oil quality from surviving plants. No data is presented.

Twenty-one private company canola varieties and hybrids were seeded April 28, 2000. Initial soil moisture conditions were fair to good. Growing season precipitation was below average. Low precipitation levels coupled with above average evaporative demand during flowering and seed set contributed to low seed yields. Hyola 401 produced 1034 lbs/a of seed compared to the nursery average of 631 lbs/a of seed (Table SC1). Seed oil contents averaged 32.4 percent which is significantly lower than the expected 40% level.

Eleven sunflower hybrids were evaluated in dryland recrop studies conducted north of Coffee Creek. Yields were lower than expected due to low precipitation levels. Test weights were surprisingly above the standard 32 lbs/bu and averaged 33.9 lbs/bu.

SUMMARY:
2000 Canola variety performance was below expectations and yield levels would not be economically viable at recent seed price levels.

FUTURE PLANS:
Canola variety testing in the Moccasin area is of questionable merit considering the small acreage and low yield levels frequently attained. Future efforts will depend on seed companies interest in financially helping support canola variety testing.

Sunflowers have made a resurgence in the area with development of the birdseed processing plant at Denton. Future variety testing will depend on seed company interest in financially supporting variety testing.

Table SC 1. 2000 Spring Canola Variety Trial at Moccasin - Notill-Recrop.
Exp SC00 Central Agricultural Research Center, Moccasin, Montana.

Variety/Hybrid	Seed Company	Plant Height	Flowering Date	Seed Yield	Seed Oil Content	Seed Oil Yield
		inches	50%	lbs/a	%	lbs/a
601	Cropland Genetics, OP, B.	45	175	532	33.1	176
Hyola 357RR	Interstate Seed	38	168	957	31.1	298
Hyola 223RR	Interstate Seed	40	166	882	33.8	298
Hyola 428	Interstate Seed	44	177	654	32.6	213
CONQUEST	Interstate Seed	42	175	512	32.3	165
Hyola401	Interstate Seed	37	169	**1034**	32.9	**340**
CL2078	Cropland Genetics, Syn, B	41	175	617	30.7	189
HUDSON	Cropland Genetics, O.P. B	42	171	631	33.7	213
GOLAITH	Cropland Genetics, O.P. B	41	172	593	**34.8**	206
MINOTRR	Cropland Genetics, O.P. B	39	173	715	33.4	239
S8003	Interstate Seed	40	170	793	31.9	253
EAGLE	Integra Seed	37	175	533	30.5	162
RIDERRR	Monsanto	40	175	567	31.4	178
DK2720RR	Monsanto Dekalb	42	172	592	31.6	187
3235RR	Lima Grain	41	169	516	30.7	158
RAIDERRR	Integra Seed	44	175	474	33.3	158
Hyola454RR	Interstate Seed	42	171	637	31.3	199
CRACKERJ	Integra Seed	42	175	470	32.2	151
SW5001	Integra Seed	41	174	417	31.2	130
SW5033RR	Integra Seed	41	173	477	33.6	160
LG3295RR	Lima Grain	42	175	653	33.3	218
MEANS		40.9	172.5	631.3	32.4	204
F VAR.		2.26	8.15	4.38		
C.V. 1: (S/Mn)		7.06	1.2	24.87		
LSD (0.05)		4.08	2.92	222.1		

Planted:	28-Apr-00	
Harvested:	14-Aug-00	
Precipitation:	Crop year: 11.12"	Apr-Jul : 7.33"
Fertilizer:	90 lbs Nitrogen + 10 lbs of Sulfur	
Previous Crop:	No-Till barley on barley	
Weed Control:	Pre-plant Roundup and post-emergent Poast.	

Table SC2. 2000 Sunflower Variety Trial near Denton.
ExpSun00 Central Agricultural Research Center, Moccasin, Montana

VARIETY	PlantHt inches	Seed Yield lbs/a	TestWt lbs/bu	Oil content %	Oil Yld lbs/a	Seed Moist %
DEKALB 3790	40.8	**1006**	35.6	49.7	**500**	5.8
INT 6039	40.8	981	34.3	**51.5**	505	5.8
INT 74018	38.5	976	32.9	46.3	451	5.9
INT 4049	40.5	935	33.9	48.4	452	5.9
CARGILL 270	41.0	925	34.4	46.3	428	5.8
INT 6077	44.5	921	33.5	47.5	437	5.9
CARGILL 120	42.5	907	**37.5**	45.1	409	6.2
CARGILL 260	36.0	894	30.2	44.8	401	5.8
PIONEER 63M01	43.0	833	33.4	47.9	399	6.1
PIONEER 6300	43.5	809	33.5	48.9	396	5.8
INT 6111	38.5	749	33.1	44.3	332	5.8
MEANS	40.9	903.3	33.9	47.3	427	5.89
F TEST FOR VAR.		0.94	30.45	31.2		4.24
C.V. 1: (S/MEAN)*100		15.53	1.66	1.5		1.94
LSD (0.05)		238.96	0.96	1.2		0.19

Approx. Pop.: 22,000 plants/acre
Seeded: 18-May-00
Harvested: 9-Oct-00
Precipitation:
Fertilizer:
Cooperator: Curtis Hershberger
Harvest notes:
Cargill 120 had multiple flowers per plant, seed shattered easily.
Cargill 260 - flowers curled back exposing the seed face more.
Pioneer 63M01 - about 50 % of the heads curled back exposing the seed face more.
Interstate 6111 - Stems bent over about one foot down from the head.