

**2004 Conventional Canola Variety Trial at Hettinger**  
Continuously Cropped – Minimum till

Brand	Variety	Type*	Plant Stand**	Days to Bloom	Duration of Flowering	Days to Mature	Plant Height	Oil Content	Yield
			%		days		inches	%	lbs/A
Croplan	KAB 36	OP, CL	86	64	26	109	28	44.6	829
Interstate	HyLite 618 CL	OP, CL	80	64	28	109	27	43.4	906
	Hyola 420	H	61	63	28	111	25	42.9	821
	Hyola 440	H	81	64	26	109	32	46.0	1195
Proseed	99CH01	H	68	64	28	109	33	43.7	896
RR Checks	Hyola 357 Mag	H	84	61	28	110	24	43.2	1126
	Minot RR	OP	66	65	27	112	27	42.9	700
Trial Mean			76	64	27	110	27	43.8	930
C.V. %			18.1	1.5	4.0	1.3	7.8	4.1	28.2
LSD .05			NS	1	NS	NS	3	NS	NS
LSD .01			NS	2	NS	NS	4	NS	NS

\* Type: H = Hybrid, S = Synthetic, OP = Open Pollinated, CL = Clearfield.

\*\* Visual estimation of plant stand on June 1.

NS = not statistical difference between varieties.

Planting Date: April 8, 2004

Harvest Date: August 9, 2004

Previous Crop: HRSW

Notes: Hard frost on May 13 (16° F) reduced plant stands and delayed plant growth. Hard frost on June 18 (25° F), during mid-bloom, caused pod sterility and yield reductions.

**2004 POST Applied Nitrogen Formulations on Canola at Hettinger, ND**

Trt No.	Treatment	Fertilizer Product	Rate	Plant Stand	Days to 10% Bloom	Duration of Bloom	Days to Mature	Plant Height	Yield
			Lbs/A	# / ft <sup>2</sup>		days		inches	lbs/ac
1	67% PPI	Urea	59						
1	33% POST	Urea	43	5.4	62	28	113	23	994
2	67% PPI	Urea	59						
2	33% POST	Am. Nitrate	43	4.7	66	26	115	24	664
3	67% PPI	Urea	59						
3	33% POST	UAN – SB*	43	5.0	66	26	116	24	709
4	67% PPI	Urea	59						
4	33% POST	UAN – FF*	43	5.1	63	28	115	24	911
5	33% PPI	Urea	15						
5	67% POST	Urea	87	6.0	61	28	113	24	902
6	33% PPI	Urea	15						
6	67% POST	Am. Nitrate	87	6.3	63	28	114	22	883
7	33% PPI	Urea	15						
7	67% POST	UAN – SB	87	8.0	62	29	115	23	782
8	33% PPI	Urea	15						
8	67% POST	UAN – FF	87	3.6	62	29	115	22	927
9	100% PPI	Urea	102	6.1	65	27	116	24	818
Trial Mean				5.6	63	28	115	23	841
C.V. %				32.8	4.8	8.7	1.7	7.3	26.4
LSD .05				NS	NS	NS	NS	NS	NS

\*SB = stream bar, FF = flat fan nozzle.

NS = no statistical difference between treatments.

Planting Date: April 12, 2004

Harvest Date: August 17, 2004

Residual soil N (0 – 48"): 28 lbs/acre

Variety: Hyola 357

Date of Emergence: April 19, 2004

Date of POST application: May 21, 2004 (3 – 4 leaf)

Previous Crop: HRSW

Notes: The trial sustained hard frosts on May 13 (18° F), May 14 (16° F) and on June 18 (25° F).

Chlorosis and leaf cupping was noted following FF treatments. 0.30" of rainfall on 5/23/04.

**2004 Yield Response of Canola to Nitrogen Fertilizer by Application Timing at Hettinger - No-till Combined Means\***

Pounds / acre N**		Plant Stand #/sq ft	Biomass %***	Plant Height cm	Days to			1000 Seed Weight grams	Oil Content %	----- Seed Yield -----		
Pre Plant	4-5 leaf				10% Bloom days	Duration of Bloom days	Days to Mature days			2004	2003	Avg.
28	0	7.9	100	57	72	24	122	5.0	44.2	212	900	556
45	0	9.9	106	58	66	28	117	5.2	46.3	372	993	682
60	0	8.8	119	61	65	29	117	4.8	46.4	594	1080	837
75	0	8.2	119	56	67	27	117	5.0	46.2	660	1163	912
90	0	9.4	114	65	65	29	117	4.9	46.1	601	1183	892
120	0	6.5	124	64	70	25	119	4.8	44.0	685	1123	904
150	0	6.5	121	62	68	26	118	5.0	43.7	633	1100	866
0	60	7.2	109	60	71	24	120	5.0	45.2	363	1027	695
0	90	7.3	119	59	70	26	119	5.1	44.8	448	980	714
0	120	7.3	124	60	72	24	119	5.0	43.9	539	840	690
0	150	6.9	115	64	71	25	119	5.1	43.6	473	1037	755
Trial Mean		7.8	115	61	69	26	119	5.0	44.9	507	1039	--
C.V. %		39.9	6.8	11.1	7.2	15.9	1.9	6.4	2.5	31.7	15.6	--
LSD .05		NS	8	NS	5	NS	2	NS	1.1	160	161	--
LSD .01		NS	10	NS	7	NS	3	NS	1.5	213	213	--

\* Combined means of 2 varieties: Hyola 357 and Minot RR and 4 replications.

\*\* Pounds per acre actual N (residual soil N 0-24" + fertilizer N). Pre-plant fert. = Urea. Post applied fert. =Amm. Nitrate applied on May 21,2004. Rainfall after post applied N: 0.69" on May 21 - 24, 2004.

\*\*\* Biomass = Visual estimation of plant foliage compared to untreated at early bloom.

NS = no statistical difference between fertility treatments.

Planting Date: April 8, 2004

Harvest Date: August 17, 2004

Previous Crop: 2002 = sunflower, 2003 = HRSW

There was no lodging or plant diseases.

The 2004 trial sustained hard frosts on May 13 (18 F), May 14 (16 F) and on June 18 (25 F), causing reduced plant stands and blossom abortion.

**2004 Roundup Ready Canola Variety Trial at Hettinger**  
Continuously Cropped – No-till

Brand	Variety	Type*	Plant Stand **	Days to Bloom	Duration of Flowering	Days to Mature	Plant Height	Oil Content	Yield	
			%		days		inches	%	lbs/A	
Croplan	Minot RR	OP	69	71	34	118	27	41.2	381	
	Crosby RR	OP	61	72	33	117	26	43.9	465	
	HyClass 767	S	68	70	35	114	29	41.2	867	
	HyClass 2061	H	60	71	34	117	27	42.8	575	
	HyClass 905	H	79	74	28	113	32	42.8	1078	
	HyClass 910	H	68	72	30	111	29	42.8	996	
Dekalb	DKL 223	H	45	68	35	115	24	41.1	692	
	DKL 34-55	OP	68	70	33	115	27	43.7	643	
Interstate	Hyola 505RR	H	50	76	29	117	31	41.9	443	
	SW Marksman	H	76	69	33	113	28	42.4	944	
	SW Patriot	S	79	68	34	112	29	42.2	941	
	SW G2535RR	H	76	68	37	115	29	41.2	740	
	Hyola 357 mag	H	65	66	36	116	23	40.4	669	
	SW PL-7835RR	S	62	69	35	114	28	42.2	661	
	Z2409RR	H	66	78	27	114	30	42.0	785	
	SW 5246RR	OP	72	72	32	116	29	40.8	613	
	HyLite 225RR	OP	60	74	30	116	28	40.7	422	
	Z2363	H	68	72	31	114	28	42.6	779	
	Z2365	H	58	68	35	112	28	40.6	773	
	Proseed	RR2013	H	58	78	27	115	28	43.5	678
		RR2066	H	58	68	35	113	26	42.6	766
Razor		S	50	74	31	117	27	41.4	454	
Roughrider		OP	62	70	36	118	28	44.8	395	
Seeds 2000	SW BadgeRR	S	50	74	31	116	28	42.1	524	
Trial Mean			64	71	33	115	28	42.1	676	
C.V. %			18.0	5.8	11.9	1.5	8.0	2.8	24.7	
LSD .05			16	6	5	2	3	1.7	235	
LSD .01			21	8	7	3	4	2.2	312	

\* Type: H = Hybrid, S = Synthetic, OP = Open Pollinated

\*\* Visual estimation of plant stand on June 1.

Planting Date: April 8, 2004      Harvest Date: August 10, 2004      Previous Crop: HRSW  
Notes: Hard frost on May 13 (16° F) reduced plant stands and delayed plant growth. Hard frost on June 18 (25° F), during mid-bloom, caused pod sterility and severe yield reductions.