

Canola

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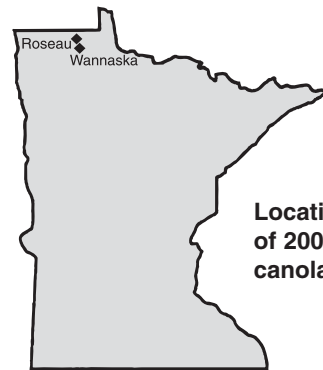
Canola (*Brassica napus* and *B. rapa*) is a crop developed from oilseed rape by Canadian plant breeders; the first canola variety was licensed in 1974. Canola is used for edible oil extraction and protein feed meal. Canola oil is considered one of the highest quality edible oils available. Considerable acreage of spring canola is grown in Canada. Min-

nesota acreage increased from about 8,000 acres in 1990 to more than 200,000 acres in 1998. Acreage in recent years has declined to less than 60,000 acres.

The oil in canola seed contains less than 2% erucic acid, compared with 20% to 40% found in oilseed rape. The canola meal remaining after oil extraction contains less than 0.1% glucosinolates (sulfur-containing compounds) compared with about 1% in rapeseed meal. Consequently, canola is also referred to as "double low" or "00" rapeseed. High levels of erucic acid in oilseed rape are hazardous to human health, and high levels of glucosinolates are detrimental in livestock feeds.

Canola (*Brassica napus*) varieties are either spring types or fall-planted winter types. Historically, most all canola grown in Minnesota has been spring types. Fall-planted winter-type canola varieties were evaluated by University of Minnesota

researchers more than 15 years ago with limited success due to winter/spring mortality. Since 2002 research on fall-planted winter-type canola varieties has been conducted in Minnesota, again with limited success. Advances in variety development and agronomic production practices provide encouragement that fall-planted winter-type canola varieties can be grown successfully in Minnesota.



Locations
of 2008
canola trials.

Seed yield and growth characteristics of non-Roundup Ready canola (*Brassica napus*) varieties (lb/acre at 8% moisture) at Wannaska in 2008.

Company	Variety	Blackleg Resistance ¹	Seedling Vigor ²	Days to Flower	Days to Maturity	Height, Inches	Lodging ³	Yield, Lb/Acre
Bayer	5440	R	2	50	95	45	1	3,102
Bayer	5550	R	1	45	94	38	2	2,964
Bayer	8440	R	1	46	91	30	0	2,936
Bayer	953	N/A	1	43	89	35	2	2,734
Bayer	5630	R	1	52	93	38	3	2,707
Mycogen	DN051874	R	1	49	95	34	3	2,576
Mycogen	845CL	MR	1	49	94	30	0	2,412
Mycogen	DN051692	R	1	48	91	33	1	2,340
Mycogen	DN051535	R	1	45	94	41	6	2,337
Mycogen	DN051607	R	1	50	93	36	3	2,255
Mycogen	830CL	R	1	49	95	43	5	2,246
Mycogen	DN051493	R	1	47	95	43	6	2,191
Mycogen	DN051505	R	1	50	93	39	7	2,065
Mean	2,528							
LSD	308							
CV	8.5							

¹ Blackleg resistance rating provided by seed companies: R = Resistant, MR = Moderately Resistant, MS = Moderately Susceptible.

² Plant lodging score: 0 = no lodging, 9 = plants lying flat.

³ Seedling vigor score: 1 = vigorous, 9 = no vigor.

Information Sources

The Minnesota Canola Council is a good source for information on canola. The council can be contacted by mail, 4630 Churchill St., Suite 1, St. Paul, MN 55126. Phone 651-638-9883, fax 651-638-0756; email, mncanola@comcast.net.

A complete and revised *Canola Growers Manual* on canola production is available from the Canola Council of Canada, 400-167 Lombard Ave, Winnipeg, Manitoba,

Canada, R3B 0T6. Phone 204-982-2100, internet, www.canola-council.org. The manual contains detailed information on canola production practices.

Note that the *Canola Growers Manual* is also available online at www.canola-council.org. Please keep in mind when using this manual that not all pesticides used in Canada are legal in the United States. Always confirm the clearance of a pesticide with your local dealer or county extension educator.

2008 Results

While a fairly late and wet spring provided less than ideal conditions for planting canola in 2008, a cool summer with adequate moisture enabled canola to yield quite well in most areas of Minnesota. Average yields were more than 300 lb/acre higher than in 2007.

Test Plot Research

Test plot establishment and management were supervised by Paul Porter and Derek Crompton.

Seed yield and growth characteristics of Roundup Ready canola (*Brassica napus*) varieties (lb/acre at 8% moisture) at Roseau in 2008.

Company	Variety	Blackleg Resistance ¹	Seedling Vigor ²	Days to Flower	Days to Maturity	Height, Inches	Lodging ³	Yield, Lb/Acre
Dekalb	DKL30-42	R	1	47	91	32	1	2,862
Cargill	V1035	R	2	45	92	36	3	2,841
Dekalb	IS3057	R	1	44	91	36	3	2,827
Mycogen	G2X0039	R	2	47	95	47	6	2,805
Monsanto	G72021	R	1	44	88	28	1	2,798
Dekalb	DKL72-55	MR	1	47	94	37	2	2,784
NoBrand	WE0801	R	1	46	92	33	3	2,739
Croplan	Hyclas 924	R	1	43	91	39	2	2,726
Dekalb	DKL52-41	R	2	47	94	35	3	2,698
Dekalb	DKL52-41PIUS	R	1	46	91	29	1	2,688
Brett Young	6051	MR	1	44	94	46	3	2,687
Integra	IX087121	R	1	43	91	37	4	2,672
Monsanto	G75011	R	1	44	95	43	1	2,645
Dekalb	IS7145	MR	1	46	90	42	5	2,645
Monsanto	G72003	R	1	46	93	34	1	2,631
Monsanto	G75449	R	1	44	92	38	1	2,627
Brett Young	6235	MR	1	47	95	46	1	2,616
Mycogen	G2X0042	R	2	47	94	41	6	2,605
Monsanto	G64034	R	1	44	92	33	1	2,594
Croplan	940	R	2	45	91	38	2	2,573
Pioneer	45H28	R	2	46	95	42	3	2,564
Mycogen	G2X0023	R	1	46	95	38	2	2,546
Cargill	V2018	MR	1	48	91	40	3	2,543
Monsanto	Z4409	R	2	44	94	34	2	2,514
Mycogen	G2X0054	R	2	47	93	40	2	2,514
Mycogen	G2X0024	R	1	49	93	38	4	2,509
Cargill	V1037	R	1	46	93	44	3	2,477
Cargill	04H272	MR	2	48	93	43	4	2,465
Mycogen	G2X0044	R	2	46	95	38	2	2,465
Proseed	30 Caliber	R	2	49	100	38	3	2,460
Proseed	50 Caliber	R	2	45	94	40	3	2,455
Monsanto	G72061	R	1	45	94	39	1	2,433
Cargill	V2010	MR	2	48	93	42	3	2,433
Mycogen	G2x0022	R	2	51	95	47	2	2,273
Proseed	2030	R	2	44	94	41	3	2,209
Proseed	2066	MR	2	49	93	39	3	2,147
Monsanto	G67012	R	1	46	93	32	2	2,128
Mean	2,573							
LSD 0.05	447							
CV (%)	12.0							

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³ Seedling vigor score: 1 = virogous, 9 = no vigor.