Canola Variety Evaluation Trials 2024

About the Program

The Manitoba Canola Variety Evaluation Trials (CVET) was launched in the 2024 season by the Manitoba Canola Growers Association with the purpose of providing farmers with independent third-party testing data for commercial canola hybrids. All seed companies were approached to enter varieties into the program. The 2024 trials were initiated at 6 different testing locations across Manitoba. Separate trials were conducted for each herbicide tolerant systems (Liberty Link and Roundup Ready/TruFlex) and all varieties were desiccated and straight cut. Two locations were cancelled over the course of the season: Swan River had to be cancelled due to early season wind and flea beetle damage, and the Rosser location had to be cancelled due to inconsistent stressors across the site causing high data variability. Therefore, data is presented from locations in Carman, Holland, Hamiota and Melita for the 2024 season.

The check variety for each respective trial was chosen based on the highest market share of entered varieties based on the 2023 MASC Variety Market Share Report.

Liberty Link

Variety Descriptions and Combined Data (4 sites)

Company	Variety	Manitoba CVET Data[1]			WCC/RRC Data[2]		
		Yield	Maturity	Lodging	Blackleg Resistance[4]	Clubroot Resistance[4]	Pod Shatter Rating[5]
		bu/ac	*(Days)*	*(1-5)*	*(Group)[4a]*	*(Generation)[4b]*	*(1-9)*
Brevant® seeds	B3012	50	95.1	1.3	R	R (1)	Y (7.0)
BrettYoung	BY 7204LL	52	92.9	1.3	R (E2)	R (1+2)	Y (7.5)
WinField United | CropPlan	CP21L3C	48	92.9	1.5	R	R (1)	N (5.4)
WinField United | CropPlan	CP24L3C	51	93.4	1.3	R	R (1+2)	Y (7.0)
CANTERRA SEEDS	CS4000 LL	48	91.9	2.3	R	R (1)	Y (6.0)
BASF | InVigor	L340PC	57	90.6	1.7	R	R (1)	Y
BASF | InVigor	L343PC	54	90.7	1.9	R	R (1+2)	Y
BASF | InVigor	L350PC	53	95.1	1.3	R	R (1)	Y
BASF | InVigor	L356PC	55	91.9	1.5	R	R (1)	Y
LSD		3.6	0.55	0.33			

[1] Data from independent canola hybrid testing in the Manitoba Canola Variety Evaluation Trials.

[2] Data from canola hybrid registration testing at Western Canadian Canola/Rapeseed Recommending Committee Trials.

[4] Genetic disease resistance is indicated with an "R" resistant rating to Blackleg, Clubroot, based on variety descriptions submitted to CFIA.

[4a,b] Additional details of blackleg group and clubroot generation labels provided by respective companies.

5 The Canola Council of Canada rating system indicates that 1 = poor, 9 = excellent pod shatter resistance.

Liberty Link Individual Site Data

Melita – Liberty Link

Variety	**Yield**	**Yield**	**Maturity**	**Lodging**
	bu/ac	*% of Check*	*(Days)*	*(1-5)*
B3012	55	90%	96.5	1.0
BY 7204LL	59	97%	95.3	1.0
CP21L3C	55	91%	94.5	1.0
CP24L3C	54	89%	94.3	1.0
CS4000 LL	57	93%	92.8	1.0
L340PC *(check)*	61	100%	90.0	1.0
L343PC	58	95%	89.0	1.0
L350PC	59	97%	96.5	1.0
L356PC	62	101%	92.3	1.0
Site Average	58		93.3	1
LSD	1.95	3%	0.78	0
CV (%)	7.5		3.2	0

Straight cut
High Late Season Disease Pressure – BL, Vs, Sc
Seeding Date: May 15, 2024
Harvest Date: Sept 4, 2024

Hamiota – Liberty Link

Variety	**Yield**	**Yield**	**Maturity**	**Lodging**
	bu/ac	*% of Check*	*(Days)*	*(1-5)*
B3012	60	93%	96.3	1.3
BY 7204LL	61	94%	91.8	1.8
CP21L3C	54	84%	93.3	1.8
CP24L3C	58	89%	93.8	1.5
CS4000 LL	53	82%	92.8	2.5
L340PC *(check)*	65	100%	88.8	1.5
L343PC	61	95%	89.3	1.5
L350PC	64	99%	97.5	1.0
L356PC	63	97%	91.3	1.0
Site Average	60		92.3	1.5
LSD	1.6	2%	0.22	0.20
CV (%)	7.8		3.0	41

Straight cut
Seeding Date: May 21, 2024
Harvest Date: Sept 3, 2024

Carman – Liberty Link

Variety	Yield	Yield	Maturity	Lodging
	bu/ac	*% of Check*	*(Days)*	*(1-5)*
B3012	46	98%	92.5	1.0
BY 7204LL	43	93%	90.3	1.5
CP21L3C	41	88%	91.0	2.3
CP24L3C	45	96%	91.8	1.8
CS4000 LL	42	91%	90.5	3.5
L340PC *(check)*	47	100%	90.0	3.4
L343PC	46	99%	91.3	4.0
L350PC	41	89%	92.5	2.0
L356PC	47	100%	90.5	3.0
Site Average	44		91.2	2.3
LSD	1.3	3%	0.79	0.34
CV (%)	7.3		2.3	52

Straight cut
Seeding Date: June 21, 2024
Harvest Date: Sept 26, 2024

Holland – Liberty Link

Variety	Yield	Yield	Maturity	Lodging
	bu/ac	*% of Check*	*(Days)*	*(1-5)*
B3012	41	71%	95.0	2.0
BY 7204LL	44	78%	94.3	1.0
CP21L3C	43	76%	92.8	1.0
CP24L3C	46	81%	94.0	1.0
CS4000 LL	40	70%	91.8	2.0
L340PC *(check)*	57	100%	93.5	1.0
L343PC	49	87%	93.3	1.0
L350PC	48	84%	94.0	1.0
L356PC	49	86%	93.5	1.0
Site Average	46		93.5	1.2
LSD	1.7	4%	0.38	0.09
CV (%)	12.3		1.3	38

Straight cut
Seeding Date: June 3, 2024
Harvest Date: Sept 24, 2024

Roundup Ready/TruFlex

Variety Descriptions and Combined Data (4 sites)

Company	Variety	Manitoba CVET Data[1]			WCC/RRC Data[2]		Pod Shatter Rating[5]
		Yield	Maturity	Lodging	Blackleg Resistance[4]	Clubroot Resistance[4]	
		bu/ac	*(Days)*	*(1-5)*	*(Group)[4a]*	*(Generation)[4b]*	*(1-9)*
WinField United | CropPlan	CP21T3P	51	93.0	1.7	R (A,G)		Y (7.8)
WinField United | CropPlan	CP22T1C	50	90.8	2.3	R	R (1 +2)	Y (7.4)
CANTERRA SEEDS	CS3200 TF	55	95.3	1.3	R (C)	R (1 + 2)	Y (7.0)
CANTERRA SEEDS	CS3300 TF	57	89.7	1.9	R (A, G)	R (1)	Y (7.0)
Experimental lines that are being tested / proposed for registration in Canada							
Maizex Seeds	C8M24520 RR	56	91.9	1.3	NT	NT	Y (7.5)
Maizex Seeds	C8M24523 RR	50	95.1	1.0	NT	NT	Y (7.0)
Maizex Seeds	C8M24524 RR	51	90.3	1.5	NT	NT	Y (7.0)
LSD		4.8					

[1] Data from independent canola hybrid testing in the Manitoba Canola Variety Evaluation Trials.

[2] Data from canola hybrid registration testing at Western Canadian Canola/Rapeseed Recommending Committee Trials.

[4] Genetic disease resistance is indicated with an "R" resistant rating to Blackleg, Clubroot, based on variety descriptions submitted to CFIA. NT - not tested through WCC/RRC to date.

[4a,b] Additional details of blackleg group and clubroot generation labels provided by respective companies.

5 The Canola Council of Canada rating system indicates that 1 = poor, 9 = excellent pod shatter resistance.

Roundup Ready / TruFlex Individual Site Data

Melita – Roundup Ready / TruFlex

Variety	Yield	Yield	Maturity	Lodging
	bu/ac	*% of Check*	*(Days)*	*(1-5)*
CP21T3P *(check)*	57	100%	94.5	1
CP22T1C	46	81%	92.0	1
CS3200 TF	59	103%	95.5	1
CS3300 TF	63	110%	90.2	1
C8M24520 RR	59	104%	92.5	1
C8M24523 RR	56	99%	95.2	1
C8M24524 RR	51	90%	88.5	1
Site Average	56		92.6	1
LSD	2.3	4%	0.90	0
CV (%)	11.2		3.1	0

Straight cut
High Late Season Disease Pressure – BL, Vs, Sc
Seeding Date: May 15, 2024
Harvest Date: Sept 4, 2024

Hamiota – Roundup Ready / TruFlex

Variety	Yield	Yield	Maturity	Lodging
	bu/ac	*% of Check*	*(Days)*	*(1-5)*
CP21T3P *(check)*	63	100%	91.8	2.0
CP22T1C	59	93%	88.5	2.5
CS3200 TF	66	105%	86.8	2.5
CS3300 TF	66	104%	96.5	2.0
C8M24520 RR	67	107%	89.0	2.5
C8M24523 RR	64	101%	95.5	1.0
C8M24524 RR	61	96%	90.0	1.0
Site Average	63		91.1	1.8
LSD	1.6	3%	0.26	0.55
CV (%)	5.8		3.8	58

Straight cut
Seeding Date: May 21, 2024
Harvest Date: Sept 3, 2024

Carman – Roundup Ready / TruFlex

Variety	Yield	Yield	Maturity	Lodging
	bu/ac	*% of Check*	*(Days)*	*(1-5)*
CP21T3P *(check)*	42.2	100%	92.3	2.0
CP22T1C	40.5	96%	90.3	3.3
CS3200 TF	44.5	105%	92.3	1.0
CS3300 TF	46.4	110%	90.3	2.5
C8M24520 RR	47.4	112%	92.0	1.5
C8M24523 RR	43.5	103%	94.0	1.0
C8M24524 RR	44.6	106%	90.0	2.3
Site Average	44		91.6	1.9
LSD	2	6%	0.72	0.23
CV (%)	9.7		1.7	45

Straight cut
Seeding Date: June 21, 2024
Harvest Date: Sept 26, 2024

Holland – Roundup Ready / TruFlex

Variety	Yield	Yield	Maturity	Lodging
	bu/ac	*% of Check*	*(Days)*	*(1-5)*
CP21T3P *(check)*	44.3	100%	93.5	1.75
CP22T1C	40.1	91%	92.3	2.5
CS3200 TF	51.0	115%	96.8	1
CS3300 TF	51.8	117%	91.5	1.75
C8M24520 RR	52.7	119%	94.3	1
C8M24523 RR	47.5	107%	95.5	1
C8M24524 RR	47.0	106%	92.5	1.75
Site Average	48		93.8	1.5
LSD	3.6	8%	0.71	0.28
CV (%)	13.7		2.2	45

Straight cut
Seeding Date: June 3, 2024
Harvest Date: Sept 24, 2024

Interpreting the Data:

Least Significant Difference (LSD): the quantity by which varieties must differ to conclude with 95% confidence that differences in data exists. If the differences between the yields of two varieties exceeds the LSD value, it means that with 95% probability, the higher-yielding variety has a significant yield advantage. If the yield differences are smaller than the LSD value variety yields are considered similar.

Coefficient of Variation (CV): a measure of random variability in the trial. A CV of less than 15% generally indicates an acceptable, uniform trial and conclusive data.

Lodging: Rated on a 1 to 5 scale, where 5 is a completely lodged plant at harvest.

Blackleg Resistance: Varieties in the tables have a resistant (R) rating for Blackleg (<30% infection of Westar check) based on WCC/RRC rating. Lesions and yield loss can still occur, based on the level of inoculum and blackleg pathotype in the field, in combination with environmental conditions conducive for disease development.

- Some seed distributors have chosen to provide blackleg resistance grouping based on major-gene (qualitative) resistance within a variety in addition to the traditional rating. Labels identifying major resistance genes present will use the letters: A, B, C, D, E1, E2, F, G, H, and X.
- Adult-plant (quantitative) resistance remains an important factor. Visit www.blackleg.ca for details on how resistance groups work.

Clubroot Resistance: Clubroot is a long-lived soil-borne disease that can impact canola performance. Clubroot resistance is generally termed 1st or 2nd Generation based on genetic source.

- First-generation clubroot resistance confers resistance to clubroot pathotypes 2F, 3H, 5I, 6M, and 8N, on the Canadian Clubroot Differential Set (Strelkov et al., 2018).
- Second-generation sources contain resistance to a varying set of pathotypes outside the original five first-generation pathotypes but may also have resistance to the original five.
- For further information on clubroot resistance labels, please visit www.clubroot.ca, refer to the company website, or speak with your seed representative.

Pod Shatter Resistance: The pod shatter rating scale was developed by the Canola Council of Canada in 2021. Numeric pod shatter ratings are provided by their respective companies or may not yet be identified on the new rating system. 1 = poor, 9 = excellent pod shatter resistance.

Contact Information:
Amy Delaquis,
Research Manager
Manitoba Canola Grower Association
Amy@Canolagrowers.com