

Statewide Spring Canola Variety Trials 2018

Results of the 2018 Statewide spring canola trials for the state of Montana can be found in the following tables. Further information on these studies can be found by contacting the superintendent or cooperating scientist of the Research Center where each trial was conducted.

Index

Table	Description
1	List of cultivars for the 2018 Statewide variety trials grouped by herbicide resistance system with disease and shatter ratings. Rating information listed was obtained from the representative source companies
2	WARC spring canola results, Corvallis, MT
3	WARC cultural, meteorological, and soils information
4	WTARC spring canola results, Conrad, MT
5	WTARC cultural, meteorological, and soils information
6	SARC spring canola results, Huntley, MT
7	NARC spring canola results, Havre, MT
8	NARC cultural, meteorological, and soils information
9	CARC spring canola results, Moccasin, MT
10	CARC cultural, meteorological, and soils information
11	EARC spring canola results, Sidney, MT
12	EARC cultural, meteorological, and soils information
13	Results of combined analysis of spring canola across all locations, 2018

Table 1. List of cultivars grouped by herbicide resistance system with disease and shatter ratings, MSU spring canola variety trial, 2018. Rating information was obtained from representatives of respective source companies.

CULTIVAR	SOURCE	-----RATING-----			
		Blackleg	Fusarium	Clubroot	Pod Shatter
<i>Clearfield</i>					
5545 CL	BrettYoung	R			
V32-1CL	Cargill Global Edible Oil Solutions	R	R		
<i>Conventional</i>					
15CH2081	Cargill Global Edible Oil Solutions	R	R	R	
16CH5186	Cargill Global Edible Oil Solutions	R	R	R	
<i>Liberty Link</i>					
InVigor L140P	BASF	R			R
InVigor L233P	BASF	R			R
<i>Roundup Ready</i>					
11H4030	Cargill Global Edible Oil Solutions	R	R		
15RH1142	Cargill Global Edible Oil Solutions	R	R		
15RH1167	Cargill Global Edible Oil Solutions	R	R		
4187 RR	BrettYoung	R		R	
6074 RR	BrettYoung	R			
6090 RR	BrettYoung	R		R	
HyCLASS 730	CROPLAN by WinField	R			
HyCLASS 930	CROPLAN by WinField	R			
HyCLASS 955	CROPLAN by WinField	R		R	
DKL 35-23	Dekalb	MR			
DKL 70-10	Dekalb	R			
<i>Sulfonylurea</i>					
C5507	Cibus	R			
Exp201801	Cibus	R			
Exp201803	Cibus	R			

R = Resistant; MR = Moderately Resistant

Table 2. MSU spring canola variety trial (irrigated), Western Agricultural Research Center, Corvallis, MT, 2018.

CULTIVAR	SOURCE	HERB RESIST	COUNT (ft ²)	FLWR DATE (julian)	CNPY HT (in)	LODGE ¹ ------(1-9)-----	SHTTR ²	YIELD ^{3,4} (lb/ac)	TEST WT (lb/bu)	OIL ⁴ (%)
5545 CL	BrettYoung	Clearfield	14.4	172.5	40.2	1	1.2	2631	49	54.8
V32-1CL	Cargill	Clearfield	12.3	178.5	38.8	1	1.8	2601	50.3	51
15CH2081	Cargill	Conventional	16.6	183	36	1	1	2092	48.3	54.6
16CH5186	Cargill	Conventional	16.8	183	33.5	1	1	2145	44.7	52.7
InVigor L140P	BASF	Liberty Link	14.1	176	40.8	1	1	1981	48.4	50.9
InVigor L233P	BASF	Liberty Link	16	173	40.2	1	1.2	2834	48.7	51.8
4187 RR	BrettYoung	Roundup Ready	15.7	178.2	35.5	1	1.2	2628	47.6	54.2
6074 RR	BrettYoung	Roundup Ready	14.9	174.5	36	1	1	2248	48	55.2
6090 RR	BrettYoung	Roundup Ready	13.1	178.2	42	1	2.5	2890	46.4	53.3
11H4030	Cargill	Roundup Ready	15.1	169	36.8	1	2.8	3585	46.5	51.9
15RH1142	Cargill	Roundup Ready	15	175.2	37	1	1.5	2487	48.6	53.1
15RH1167	Cargill	Roundup Ready	16.9	178.5	36.8	1	1.5	2651	48.8	52.3
HyCLASS 730	CROPLAN by WinField	Roundup Ready	13.6	172	38.8	1	1.2	3249	48.1	55.5
HyCLASS 930	CROPLAN by WinField	Roundup Ready	15.2	171.2	38	1	1.5	2774	47.8	56
HyCLASS 955	CROPLAN by WinField	Roundup Ready	13.7	172	39.2	1	1.2	3144	47	55.7
DKL 35-23	DEKALB	Roundup Ready	13.7	172	38.8	1	1	2744	48.3	55
DKL 70-10	DEKALB	Roundup Ready	16.5	172.5	39.8	1	1	2402	48.5	54.4
C5507	Cibus	Sulfonylurea	13.6	174.2	39.2	1	1	2016	46.7	54.5
Exp201801	Cibus	Sulfonylurea	13.2	175.2	37.5	1	1	2098	45	55.8
Exp201803	Cibus	Sulfonylurea	8.8	173	39	1	1	2204	46.2	53.1
Mean			14.5	175.1	38.2	1	1.3	2570	47.6	53.8
CV%			21.3	0.9	6		48.1	19.9	4.1	2.8
LSD			NS ⁵	2.1	3.2		0.9	NS ⁵	2.8	2.2
P-Value			0.1174	<0.001	<0.001		0.0064	<0.001	0.0238	<0.001

Bold = top performer(s); **Bold** = statistically equivalent to top performer(s); ¹ 1 = no lodging; 9 = all plants lodged; ² 1 = no shattering; 9 = all plants shattered

³ YIELD data at this location may be falsely elevated due to manual (i.e., 1-m² subplots clipped by hand) versus mechanical harvest methods

⁴ Adjusted to 8.5% moisture; ⁵ Fisher's protected LSD not significant when CV% > 15 (YIELD only) and/or P-Value > 0.05

Table 3. Cultural, meteorological, and soils information, MSU spring canola variety trial, Western Agricultural Research Center, Corvallis, MT, 2018.

Irrigation (inches)	3
Tillage	Conventional
Row Spacing (inches)	6.5
Seeding Date	3-May
Harvest Date	10-Sep
Harvest Type	Hand clipped (1 m ² plots)
Previous Crop	Oats
Fertilizer	100 lbs N, 15 lbs P & K
Pesticide	Assure 2 post-emergence; Stinger post-emergence
Pests	Click beetle, birds
2017 Seasonal Precip (Apr thru Aug) in Inches	5.18
Avg. Seasonal Precip (Apr thru Aug) in Inches	5.84
Last Killing Frost in Spring (32°F)	2-May
First Killing Frost in Fall (32°F)	14-Sep
Frost-free Period (days)	195
Max Summer Temperature (°F)	97
Date of Max Summer Temperature	11-Aug
Soil Type	Burnt Fork loam
Elevation (feet)	3597
Note(s)	Harvest method may have falsely elevated yields

Table 4. MSU spring canola variety trial (dryland), Western Triangle Agricultural Research Center, Conrad, MT, 2018.

CULTIVAR	SOURCE	HERB RESIST	COUNT (ft ²)	FLWR DATE (julian)	CNPY HT (in)	LODGE ¹ ------(1-9)-----	SHTTR ²	YIELD ³ (lb/ac)	TEST WT (lb/bu)	OIL ³ (%)
5545 CL	BrettYoung	Clearfield	-	176.2	42	1	1	1465	54	46.1
InVigor L140P	BASF	Liberty Link	-	178.5	41.2	1	1	1265	53.7	45
InVigor L233P	BASF	Liberty Link	-	176.5	39.8	1	1	1145	53.7	45.9
4187 RR	BrettYoung	Roundup Ready	-	180.2	42.5	1	1	1577	53.5	47.4
6074 RR	BrettYoung	Roundup Ready	-	178.5	42.8	1	1	1468	53.2	46.2
6090 RR	BrettYoung	Roundup Ready	-	177.2	47.5	1	1	1310	53.1	44.6
11H4030	Cargill	Roundup Ready	-	175.5	31.2	1	1	1340	53.5	46.1
HyCLASS 730	CROPLAN by WinField	Roundup Ready	-	176.2	37	1	1	1664	52.9	48.8
HyCLASS 930	CROPLAN by WinField	Roundup Ready	-	175	36.8	1	1	1581	53.4	47.5
HyCLASS 955	CROPLAN by WinField	Roundup Ready	-	175.8	37	1	1	1317	53.4	48.5
DKL 35-23	DEKALB	Roundup Ready	-	176.5	35.5	1	1	1402	53.1	45.8
DKL 70-10	DEKALB	Roundup Ready	-	176	38.2	1	1	1577	53.5	46.6
C5507	Cibus	Sulfonylurea	-	176.8	44	1	1	1339	52.2	48.7
Exp201801	Cibus	Sulfonylurea	-	178.5	40	1	1	1277	52.9	46.5
Exp201803	Cibus	Sulfonylurea	-	175.8	42.2	1	1	987	52.7	46.3
Mean			-	176.9	39.9	1	1	1381	53.2	46.7
CV%				1	5.6			14.7	0.7	3.1
LSD				2.5	3.2			289	0.5	2.1
P-Value				0.0054	<0.001			0.0018	<0.001	0.0022

Bold = top performer(s)

Bold = statistically equivalent to top performer(s)

¹ 1 = no lodging; 9 = all plants lodged

² 1 = no shattering; 9 = all plants shattered

³ Adjusted to 8.5% moisture

⁴ Fisher's protected LSD not significant when CV% > 15 (YIELD only) and/or P-Value > 0.05

Table 5. Cultural, meteorological, and soils information, Spring Canola Variety Trial, Western Triangle Agricultural Research Center, Conrad, MT, 2018.

Irrigation (inches)	None
Tillage	Chem-fallow barley stubble
Row Spacing (inches)	12
Seeding Date	2-May
Swath date	14-Aug
Thrash date	21-Aug
Previous Crop	Barley
Fertilizer	100-20-20-20
Pesticide	RT3 pre-plant, 40 oz/ac, Sevin XLR Plus, 1.5 qt/ac
Pests	Flea Beetle
2018 Seasonal Precip (Apr thru Aug) in Inches	5.69
Avg. Seasonal Precip (Apr thru Aug) in Inches	8.35
Last Killing Frost in Spring (32°F)	18-May
First Killing Frost in Fall (32°F)	15-Sep
Frost-free Period (days)	120
Max Summer Temperature (°F)	100° F
Date of Max Summer Temperature	18-Aug
Soil Type	clay loam
Elevation (feet)	3700

Table 6. 18CVT08: 2018 Statewide Spring Canola Variety Trials near Huntley, MT. MSU Southern Agricultural Research Center.

Cultivar	Grain ^{1/}	Test	Harvest	Grain ^{2/}	Grain ^{2/}	Canopy	Lodging ^{3/}	Plant	Preharvest	Flowering Date		Maturity Date	
	Yield	Weight	Moisture	Protein	Oil	Height		Stand	Shatter	Julian	Calendar	Julian	Calendar
	- lb/a -	- lb/bu -	----- % -----			- in -	- % -	- #/ft ² -	- % -				
11H4030	1,246	49.3	5.3	26.0	39.0	37.9	7.4	12.6	18.8	164.8	Jun 13	203.3	Jul 22
4187 RR	1,622**	50.0	6.5	24.1	43.8	51.7	0.8	12.0	5.0	172.3	Jun 21	212.3	Jul 31
5545 CL	1,418	50.0	5.9	24.4	42.3	48.0	0.8	10.6	15.0	168.5	Jun 17	210.8	Jul 29
6074 RR	1,596*	50.0	7.3	24.9	42.2	46.5	0.8	13.1	15.0	169.5	Jun 18	211.8	Jul 30
6090 RR	1,152	49.1	6.3	27.1	40.7	52.8	0.0	12.4	22.5	173.3	Jun 22	210.8	Jul 29
C5507	1,243	48.6	7.0	27.0	41.3	44.7	0.0	11.5	6.3	171.5	Jun 20	211.3	Jul 30
Dekalb 35-23	1,184	48.5	6.0	28.0	39.1	37.6	11.9	12.9	15.0	165.0	Jun 14	204.3	Jul 23
Dekalb 70-10	1,428*	50.1	5.6	26.9	40.3	40.5	2.9	12.3	25.0	164.8	Jun 13	203.5	Jul 22
Exp 201801	843	45.7	9.3	27.0	41.6	41.6	0.0	12.3	0.0	173.3	Jun 22	217.5	Aug 5
Exp 201803	553	45.8	8.0	28.8	38.3	42.1	0.0	13.7	3.8	174.0	Jun 23	214.8	Aug 2
HyCLASS 730	1,189	49.9	5.7	25.5	41.3	40.8	18.7	13.1	17.5	164.7	Jun 13	205.2	Jul 24
HyCLASS 930	1,227	49.5	5.8	25.4	42.0	40.1	14.2	13.2	21.3	164.3	Jun 13	204.0	Jul 23
HyCLASS 955	1,264	49.5	6.3	25.5	41.8	41.4	1.1	13.6	16.3	165.3	Jun 14	204.5	Jul 23
Average	1,228	48.9	6.5	26.2	41.1	43.5	4.5	12.6	13.9	168.5	Jun 17	208.8	Jul 27
Prob > F	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.942	<0.01	<0.01		<0.01	
PLSD (p=0.05)	194	1.4	0.9	0.8	0.8	3.4	3.0	ns	12.4	1.5		2.8	
CV%	11.0	1.9	9.7	2.0	1.4	5.4	90.2	21.1	62.0	0.6		0.9	

** Indicates highest yielding cultivar.

* Indicates cultivars yielding equal to the highest yielding entry based on Fisher's Protected LSD at the 0.05 probability level.

1/ Grain yields in pounds per acre adjusted to 8% grain moisture content.

2/ Grain protein and oil content values adjusted to 8% grain moisture content.

3/ Lodging estimates transformed by natural logarithm prior to analysis. Displayed means and PLSD are converted back to percent lodging.

Planted: April 27, 2018.

Harvested: August 10, 2018.

Table 7. MSU spring canola variety trial (dryland), Northern Agricultural Research Center, Havre, MT, 2018.

CULTIVAR	SOURCE	HERB RESIST	COUNT (ft ²)	FLWR DATE (julian)	CNPY HT (in)	LODGE ¹ ------(1-9)-----	SHTTR ²	YIELD ³ (lb/ac)	TEST WT (lb/bu)	OIL ³ (%)
5545 CL	BrettYoung	Clearfield	5.8	168.5	45.8	1	1	1691	52.5	45.9
InVigor L140P	BASF	Liberty Link	4.8	168.5	46.8	1	1	1858	52.7	44.6
InVigor L233P	BASF	Liberty Link	5.5	167.2	40.5	1	1	1952	53	45.3
4187 RR	BrettYoung	Roundup Ready	5.8	170.5	43.5	1	1	1830	52.1	47.2
6074 RR	BrettYoung	Roundup Ready	5	169	47.8	1	1	1951	53.1	45.9
6090 RR	BrettYoung	Roundup Ready	4.3	171	52.8	1	1	1545	52	46.5
11H4030	Cargill	Roundup Ready	5.3	162.2	38	2	1	2147	52.5	45
HyCLASS 730	CROPLAN by WinField	Roundup Ready	5.5	163.8	38.5	1	1	2266	52.7	46.7
HyCLASS 930	CROPLAN by WinField	Roundup Ready	5.1	162.8	41.5	1	1	2193	52.2	47.6
HyCLASS 955	CROPLAN by WinField	Roundup Ready	6.3	163	41.2	1	1	2310	52.3	48.1
DKL 35-23	DEKALB	Roundup Ready	5.5	164.5	38.2	1	1	2076	52.5	43.1
DKL 70-10	DEKALB	Roundup Ready	4.9	165	43.5	1	1	2325	52.5	45.4
C5507	Cibus	Sulfonylurea	5.5	168.8	40.8	1	1	1786	52.1	46.7
Exp201801	Cibus	Sulfonylurea	5.7	169.2	45.8	1	1	1644	52.2	47.8
Exp201803	Cibus	Sulfonylurea	4.6	170.5	45.5	1	1	1306	52.5	46.1
Mean			5.3	167	43.3	1.1	1	1925	52.5	46.1
CV%			12.9	0.6	7.8			7.1	0.4	2.3
LSD			1	1.3	4.8			197	0.3	1.5
P-Value			0.0183	<0.001	<0.001			<0.001	<0.001	<0.001

Bold = top performer(s)

Bold = statistically equivalent to top performer(s)

¹ 1 = no lodging; 9 = all plants lodged

² 1 = no shattering; 9 = all plants shattered

³ Adjusted to 8.5% moisture

Table 8. Cultural, meteorological, and soils information, MSU spring canola variety trial, Northern Agricultural Research Center, Havre, MT, 2018.

Irrigation (inches)	None
Tillage	No-till
Row Spacing (inches)	12
Seeding Date	1-May
Harvest Date	7-Aug
Harvest Type	Direct cut
Previous Crop	Spring Barley
Fertilizer	50-15-0-20
Pesticide	Sonalan 10G preplant, RT III preplant, Mustang Max in-crop
Pests	Early season flea beetle
2018 Seasonal Precip (Apr thru Aug) in Inches	4.02
Avg. Seasonal Precip (Apr thru Aug) in Inches	6.81
Last Killing Frost in Spring (32°F)	14-May
First Killing Frost in Fall (32°F)	28-Sep
Frost-free Period (days)	137
Max Summer Temperature (°F)	102.6
Date of Max Summer Temperature	2-Aug
Soil Type	Joplin Loam, Calcareous
Elevation (feet)	2708
Note(s)	new seeder, excellent emergence compared to years past

Table 9. MSU spring canola variety trial (dryland), Central Agricultural Research Center, Moccasin, MT, 2018.

CULTIVAR	SOURCE	HERB RESIST	COUNT (ft ²)	FLWR DATE (julian)	PLANT HT (in)	LODGE ¹ ------(1-9)-----	SHTTR ²	YIELD ³ (lb/ac)	TEST WT (lb/bu)	OIL ³ (%)
5545 CL	BrettYoung	Clearfield	11.6	171.8	44.8	1	1	1011	50.8	53.5
4187 RR	BrettYoung	Roundup Ready	13	173	45	1	1	1134	51.2	53.3
6074 RR	BrettYoung	Roundup Ready	12	171	40.8	1	1	1115	51	54.9
6090 RR	BrettYoung	Roundup Ready	11.1	173	46.5	1	1	864	50.3	54.6
11H4030	Cargill	Roundup Ready	13.7	165.2	34	1	1	1099	50.9	53.5
HyCLASS 730	CROPLAN by WinField	Roundup Ready	13.2	166.2	36.5	1	1	1035	51.1	56.2
HyCLASS 930	CROPLAN by WinField	Roundup Ready	12.1	166.5	39	1	1	1058	51.4	54.7
HyCLASS 955	CROPLAN by WinField	Roundup Ready	12.8	167	37.8	1	1	1084	51	56.2
DKL 35-23	DEKALB	Roundup Ready	11.3	168.2	38.8	1	1	944	51.2	55.3
DKL 70-10	DEKALB	Roundup Ready	11.4	169	40	1	1	1128	50.8	54.2
C5507	Cibus	Sulfonylurea	10.4	171.2	44	1	1	1042	50	54.8
Exp201801	Cibus	Sulfonylurea	10.4	172	42.2	1	1	895	50.8	55.7
Exp201803	Cibus	Sulfonylurea	11.1	172	42.2	1	1	771	50.7	54.3
Mean			11.8	169.7	40.9	1	1	1014	50.9	54.7
CV%			12	0.2	4.8			9.9	0.7	2
LSD			2	0.6	2.8			144	0.5	1.6
P-Value			0.0354	<0.001	<0.001			<0.001	<0.001	0.0038

Bold = top performer(s)

Bold = statistically equivalent to top performer(s)

¹ 1 = no lodging; 9 = all plants lodged

² 1 = no shattering; 9 = all plants shattered

³ Adjusted to 8.5% moisture

Table 10. Cultural, meteorological, and soils information, MSU spring canola variety trial, Central Agricultural Research Center, Moccasin, MT, 2018.

Irrigation (inches)	None
Tillage	No-till
Row Spacing (inches)	12
Seeding Date	26-Apr
Harvest Date	10-Aug
Harvest Type	Direct cut
Previous Crop	Spring Barley
Fertilizer	70 lb N/ac, 7 lb P ₂ O ₄ /ac, 6 lb K/ac, 25 lb SO ₄ /ac
Pesticide	Glyphosate pre-plant, 1.25 pt /ac; Stinger in-crop, 8 oz/ac
Pests	None
2018 Seasonal Precip (Apr thru Aug) in Inches	11.42
Avg. Seasonal Precip (Apr thru Aug) in Inches	10.2
Last Killing Frost in Spring (32°F)	2-May
First Killing Frost in Fall (32°F)	28-Aug
Frost-free Period (days)	118
Max Summer Temperature (°F)	103
Date of Max Summer Temperature	12-Aug
Soil Type	Judith and Danvers clay loam
Elevation (feet)	4250

Table 11. MSU spring canola variety trial (irrigated), Eastern Agricultural Research Center, Sidney, MT, 2018.

CULTIVAR	SOURCE	HERB RESIST	COUNT (ft ²)	FLWR DATE (julian)	CNPY HT (in)	LODGE ¹ ------(1-9)-----	SHTTR ²	YIELD ³ (lb/ac)	TEST WT (lb/bu)	OIL ³ (%)
5545 CL	BrettYoung	Clearfield	7	169	39.5	6.5	1	1419	54	52.7
V32-1CL	Cargill	Clearfield	9.2	171	36	7	1	1208	53.1	49.4
15CH2081	Cargill	Conventional	11.9	176	39.5	2.8	1	1555	52.9	53.3
16CH5186	Cargill	Conventional	10.9	174	36.2	2.8	1	1178	53.9	52.2
4187 RR	BrettYoung	Roundup Ready	8.6	173	40	2.8	1	1539	53.8	52.4
6074 RR	BrettYoung	Roundup Ready	9.2	171.2	36.5	5.2	1	1518	52.8	52
6090 RR	BrettYoung	Roundup Ready	8.8	176.2	45.2	3	1	1182	52.9	51.8
11H4030	Cargill	Roundup Ready	7.8	165	31	9	1	1579	52.9	50.2
15RH1142	Cargill	Roundup Ready	8.6	176.5	42.8	2.2	1	1265	52.9	51.5
15RH1167	Cargill	Roundup Ready	9.9	175	37.2	2	1	1287	53.5	52.4
HyCLASS 730	CROPLAN by WinField	Roundup Ready	11.4	165.2	32.2	8	1	1641	53.9	53.1
HyCLASS 930	CROPLAN by WinField	Roundup Ready	8.5	164.8	28.2	7.8	1	1491	53	53.5
HyCLASS 955	CROPLAN by WinField	Roundup Ready	9.2	165.8	31.8	8	1	1683	53	52.7
DKL 35-23	DEKALB	Roundup Ready	9.1	165.5	29.8	7	1	1590	54	52
DKL 70-10	DEKALB	Roundup Ready	9.2	166	31.2	5.8	1	1605	53.4	51.9
C5507	Cibus	Sulfonylurea	8.1	173.5	39	7	1	1165	53	51.6
Exp201801	Cibus	Sulfonylurea	7.4	176	47.2	2.8	1	953	52	51.2
Exp201803	Cibus	Sulfonylurea	8.2	176.2	40.2	4.8	1	540	51	48
Mean			9.1	171.1	36.9	5.2	1	1355	53.1	51.8
CV%			21.6	0.7	12	12.4		12.2	2.1	1.8
LSD			NS ⁴	1.8	6.3	0.9		235	NS ⁴	1.3
P-Value			0.0571	<0.001	<0.001	<0.001		<0.001	0.0598	<0.001

Bold = top performer(s)

Bold = statistically equivalent to top performer(s)

¹ 1 = no lodging; 9 = all plants lodged

² 1 = no shattering; 9 = all plants shattered

³ Adjusted to 8.5% moisture; ⁴ Fisher's protected LSD not significant when CV% > 15 (YIELD only) and/or P-Value > 0.05

Table 12. Cultural, meteorological, and soils information, MSU spring canola variety trial, Eastern Agricultural Research Center, Sidney, MT, 2018.

Irrigation (inches)	2.68
Tillage	Conventional
Row Spacing (inches)	12
Seeding Date	3-May
Harvest Date	14-Aug
Harvest Type	Direct cut
Previous Crop	Sugarbeet
Fertilizer	60 lb N/ac
Pesticide	Stinger, 6 fl oz/ac; Sevin, 1 qt/ac
Pests	Early season flea-beetle
2018 Seasonal Precip (Apr thru Aug) in Inches	9.52
Avg. Seasonal Precip (Apr thru Aug) in Inches	9.56
Last Killing Frost in Spring (32°F)	24-Apr
First Killing Frost in Fall (32°F)	28-Sep
Frost-free Period (days)	157 days
Max Summer Temperature (°F)	103
Date of Max Summer Temperature	11-Aug and 12-Aug
Soil Type	clay loam
Elevation (feet)	1929

Table 13. 2018 Montana State University Spring Canola Variety Trial seed yield results in pounds per acre with summary statistics, grouped by location. Includes dryland and irrigated sites.

CULTIVAR	HERB RESIST	DRYLAND YIELD				IRRIGATED YIELD	
		MOCCASIN	CONRAD	HAVRE	HUNTLEY	CORVALLIS	SIDNEY
BASF							
InVigor L140P	LL	-	1265	1858	-	1981	-
InVigor L233P	LL	-	1145	1952	-	2834	-
Bayer/DEKALB							
DKL 35-23	RR	944	1402	2076	1191	2744	1590
DKL 70-10	RR	1128	1577	2325	1435	2402	1605
Brett Young Seeds							
5545 CL	CL	1011	1465	1691	1426	2631	1419
4187 RR	RR	1134	1577	1830	1631	2628	1539
6074 RR	RR	1115	1468	1951	1605	2248	1518
6090 RR	RR	864	1310	1545	1158	2890	1182
Cargill Global Edible Oil Solutions							
V32-1CL	CL	-	-	-	-	2601	1208
15CH2081	None	-	-	-	-	2092	1555
16CH5186	None	-	-	-	-	2145	1178
15RH1167	RR	-	-	-	-	2651	1287
Cibus							
C5507	SU	1042	1339	1786	1250	2016	1165
Exp201801	SU	895	1277	1644	847	2098	953
Exp201803	SU	771	987	1306	556	2204	540
CROPLAN by WinField United							
CP9919RR	RR	1099	1340	2147	1253	3585	1579
CP9982RR	RR	-	-	-	-	2487	1265
HyCLASS 730	RR	1035	1664	2266	1195	3249	1641
HyCLASS 930	RR	1058	1581	2193	1234	2774	1491
HyCLASS 955	RR	1084	1317	2310	1271	3144	1683
Mean		1014	1381	1925	1235	2570	1355
CV (%)		9.9	14.7	7.1	11.0	19.9	12.2
LSD		144	289	197	196	NS	235
P-Value		<0.001	0.0018	<0.001	<0.001	<0.001	<0.001

Bold = maximum yield within a column

Bold = statistically equivalent to maximum yield

Fisher's protected LSD not significant (NS) when CV (%) > 15 and/or P-Value > 0.05

Yield adjusted to 8.5% moisture