

Title: Statewide Canola Variety Evaluation, Kalispell – 2014

Objective: To evaluate canola varieties for agronomic performance in environments and cropping systems representative of northwestern Montana.

Results:

The target plant population was 10 plants per square foot (Table 2). Most varieties exceeded this, averaging 12.0 plants/sqft and ranged from 6.3 plants/sqft for Cara to 17.5 plants/sqft for inVigor L140P. Yields averaged 73.2 bu/A and ranged from 41.4 bu/A for Arriba to 84.2 bu/A for InVigor L140P. Fifty percent flowering spanned six days and averaged 176 Julian days (June 25). Physiological maturity was observed in all of the cultivars over a nine day span and averaged 226 Julian days (August 9). Heights averaged 61.9 inches and varied from 56.5 inches for Arriba to 68.4 inches for InVigor 5440. No significant difference was observed for percent lodging or pod shatter. Oil content averaged 47.6% and ranged from 44.9% for Arriba to 50.5% for HyClass 930. Test weight averaged 49.0 lb/bu and ranged from 47.8 lb/bu for Cara and Arriba to 50.6 lb/bu for 6044 RR.

No significant differences were observed among the Green and Grow seed treatments for any of the measured response variables (Table 3).

Table 1. Materials and Methods - Canola Variety Trial - 2014

Seeding Date:	4/22/2014	Harvest Date:	9/5/2014
Julian Date:	112	Julian Date:	248
Seeding Rate:	10 plnt/sqft	Soil Type:	Creston SiL
Previous Crop:	Spring Wheat	Soil Test:	246-24-178
Tillage:	Conventional	Fertilizer:	50-30-40-20
Irrigation:	None	Insecticide:	Warrior 1.5 floz/A
		Fungicide:	Endura 6 oz/A

Table 2. Agronomic data from the statewide canola variety trial, Kalispell, MT - 2014

Variety	Herbicide System	PLNT sqft	FLWR Julian	HT in	LOD %	SHTTR %	PM Julian	YLD lb/A	YLD bu/A	OIL %
DKL 30-03	RR	12.5	173	61.1	55.0	7.5	221	3791.2	75.8	49.5
DKL 30-42	RR	7.5	175	58.3	52.5	4.5	223	3826.4	76.5	48.1
DKL 38-48	RR	13.3	176	60.5	53.8	5.3	225	4133.0	82.7	47.9
DKL 55-55	RR	12.8	174	61.0	57.5	5.5	227	4047.4	80.9	48.3
DKL 70-07	RR	10.8	175	62.8	56.3	8.0	226	3777.0	75.5	48.6
HyClass 955	RR	12.5	175	60.8	61.3	8.0	226	3736.9	74.7	48.6
HyClass 969	RR	16.5	176	59.2	47.5	7.8	227	3532.2	70.6	48.6
HyClass 930	RR	13.5	175	61.3	58.8	5.5	225	4101.6	82.0	50.5
InVigor L130	L	10.5	175	63.5	51.3	3.0	224	3917.4	78.3	46.5
InVigor L140P	L	17.5	178	65.7	63.8	2.8	228	4212.3	84.2	47.2
InVigor L252	L	11.0	178	64.3	50.0	2.8	227	3986.5	79.7	47.8
InVigor 5440	L	14.0	177	68.4	40.0	5.0	226	3808.8	76.2	46.5
6070 RR	RR	12.3	176	62.9	51.3	5.3	230	3953.7	79.1	46.5
6044 RR	RR	10.5	177	63.5	23.8	6.0	226	3309.6	66.2	46.5
Cara	None	6.3	178	59.9	56.3	6.3	226	2323.3	46.5	46.0
Arriba	None	10.8	175	56.5	57.5	9.3	226	2068.8	41.4	44.9
Mean		12.0	175.8	61.9	52.3	5.8	225.8	3657.9	73.2	47.6
CV		30.9	0.7	3.7	27.9	69.3	0.7	12.3	12.3	2.5
LSD		5.3	1.7	3.3	ns	ns	2.1	645.2	12.9	1.7
Pr>F		0.0136	0.0001	0.0001	0.0881	0.5017	0.0001	0.0001	0.0001	0.0001

PLNT: plant, FLWR: 50% flowering, HT: height, LOD: lodging, SHTTR: shatter, PM: physiological maturity

YLD: yield, TWT: test weight, RR: RoundUp, L: Liberty Link, ns: nonsignificant.

Yield and test weight have been adjusted to 8% moisture.

Table 3. Agronomic data from statewide Green and Grow trial, Kalispell, MT - 2014

Treatment	PLNT sqft	FLWR Julian	HT in	LOD %	SHTTR %	PM Julian	YLD lb/A	YLD bu/A	OIL %	TWT lb/bu
HyClass 930 + CTRL 000	14.3	175	60.2	50.0	2.3	225	4282.5	85.7	49.7	49.3
HyClass 930 + AGR 100	13.8	174	60.4	55.0	6.3	225	3932.1	78.6	49.0	48.8
HyClass 930 + AGR 200	13.5	175	58.3	42.5	3.3	225	4586.0	91.7	49.8	48.9
HyClass 930 +AGR 300	12.5	174	60.0	50.0	3.0	224	3906.9	78.1	50.0	49.0
Mean	13.5	174.4	59.7	49.4	3.7	224.8	4176.9	83.5	49.6	49.0
CV	27.1	0.6	3.3	26.6	68.6	0.4	16.7	16.7	1.7	0.9
LSD	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Pr>F	0.9189	0.9030	0.4324	0.6227	0.1940	0.4655	0.4982	0.4982	0.3339	0.5594

AGR: Agriplier seed treatment, PLNT: plant, FLWR: 50% flowering, HT: height, LOD: lodging, SHTTR: shatter, PM: physiological maturity, YLD: yield, TWT: test weight, ns: nonsignificant.

Yield and test weight have been adjusted to 8% moisture.