

Title: Statewide Canola Variety Evaluation, Kalispell – 2015

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

Results:

Significant differences were observed in plant density, flowering date, plant height, yield, percent oil, and test weight. Plants density averaged 15.5 plants/ft² and ranged from 9.8 plants/ft² for Cara to 20.4 plants/ft² for InVigor L130. Flowering date averaged 169 days (June 18) and spanned a 5 day period that ranged from 166 to 171 days. Plant height averaged 47.7 inches and ranged from 41.8 inches for Arriba to 53.3 inches for InVigor 5440. Lodging averaged 11.6% however, no significant difference was observed among entries. Shatter was 0.0% for all varieties. Yields averaged 61.3 bu/A and ranged from 43.2 bu/A for Cara to 72.9 bu/A for InVigor 5440. Oil content averaged 50.4%, ranging from 46.8% for InVigor L130 to 54.8% for 6074RR and C1516. Test weights averaged 51.0 lb/bu and ranged from 48.5 lb/bu for HyClass 955 to 57.4 lb/bu for C1516.

Summary:

InVigor 5440 was the highest yielding variety and had an oil content of 49.5%. Based on the LSD value for yield at 12.4, 11 varieties were statistically equivalent to InVigor 5440.

Table 1. Materials and Methods - Canola Variety Trial, Kalispell, MT - 2015

Seeding Date:	4/21/2015	Harvest Date:	8/10/2015
Julian Date:	111	Julian Date:	222
Seeding Rate:	10 plants/ft ² 6" rows	Soil Type:	Creston SiL
Previous Crop:	Spring Wheat	Soil Test:	61-8-180-62
Tillage:	Conventional	Fertilizer:	125-35-35-20
Irrigation:	None	Insecticide:	Warrior II 1.92 oz/A
Herbicide:	Stinger 8 oz/A	Fungicide:	Quadris 6 oz/A

Table 2. Agronomic data from the statewide canola variety trial, Kalispell, MT - 2015

Variety	PLNT sqft	FLWR Julian	HT in	LOD %	SHTTR %	YLD ¹ bu/A	OIL ¹ %	TWT ¹ lb/bu	MC %
InVigor 5440	16.9	169	53.3	14.3	0.0	72.9	49.5	51.0	12.5
HyClass 930	14.3	166	46.8	7.3	0.0	71.3	49.3	48.7	7.8
DKL 70-07	16.3	168	48.5	9.3	0.0	68.6	49.4	48.9	8.3
HyClass 955	16.8	167	46.3	8.3	0.0	68.4	49.3	48.5	7.3
InVigor L252	15.2	169	48.8	9.5	0.0	68.3	54.7	51.8	15.0
G49720	17.0	169	45.8	16.3	0.0	66.0	49.9	49.7	10.4
DKL 70-10	16.7	169	49.8	6.3	0.0	65.1	47.1	49.5	9.1
DKL 38-48	13.5	167	44.5	10.0	0.0	64.8	49.1	49.8	9.2
6044RR	16.6	170	47.3	13.8	0.0	64.6	52.4	52.7	16.0
InVigor L140P	19.0	169	48.3	13.0	0.0	64.1	47.7	49.4	9.7
HyClass 970	12.7	169	47.0	14.3	0.0	64.0	52.9	51.5	15.5
G28101	16.0	169	47.0	15.3	0.0	61.6	49.1	49.2	7.3
InVigor L130	20.4	169	50.3	7.0	0.0	59.7	46.8	49.1	7.8
Arriba	17.5	168	41.8	8.8	0.0	55.0	47.7	49.5	7.8
DKL 70-50CR	16.3	168	44.8	15.0	0.0	54.6	52.3	50.3	12.3
C1511	14.0	169	50.0	13.0	0.0	53.9	50.0	54.4	20.5
6074RR	12.2	171	49.5	10.0	0.0	50.4	54.8	56.6	24.8
C1516	12.7	171	51.5	15.0	0.0	47.3	54.8	57.4	25.0
Cara	9.8	169	45.8	14.3	0.0	43.2	50.4	51.0	12.8
Mean	15.5	169	47.7	11.6	0.0	61.3	50.4	51.0	12.6
CV	19.7	0.5	7.0	60.5	0.0	14.3	3.6	1.7	15.6
LSD	4.3	1.2	4.7	ns	ns	12.4	2.6	1.2	2.8
Pr>F	0.0016	0.0001	0.0029	0.6236	1	0.0001	0.0001	0.0001	0.0001

PLNT: plant, FLWR: 50% flowering, HT: height, LOD: lodging, SHTTR: shatter, YLD: yield, TWT: test weight, MC: moisture content, ns: nonsignificant

¹ adjusted to 8% moisture.