Project Title: 2020 Spring Canola Variety Trial

Objective: To evaluate the performance of selected spring canola varieties in

northwestern Montana

Personnel: J.A. Torrion, Amanda Shine, Eeusha Nafi, Simon Fordyce, Pat Carr

Summary:

Twenty different varieties of spring canola were planted on April 28, 2020 managed under dryland conditions (Table 1). There was minimal lodging and shattering in the trial.

The average grain yield this year was 2,985 lb/A that was 57% higher compared with last year (1898 lb/A). InVigor L345PC had the highest average yield of 3,544.3 lb/A and CS2300 had the lowest yield (2,430.7 lb/A) as shown in Table 2. The tallest variety was CS2300 (64.5 in.) and the shortest was DKTFLL21SC at 52.9 in. Average height across the trial was 57.8 in. Test weights were relatively consistent among all varieties, with an average of 51.8 lb/bu. DKTF96SC had the highest test weight (52.5 lb/bu), and CS2300 had the lowest, at 51.2 lb/bu. CP930RR had the highest oil content of 52.5% and NCC101S had the lowest (47.2 %). Average oil content across all varieties was 50.5%. Average days to flowering was 177 (julian) ranging from 174 days to 178 days.

Table 1. Management information

Seeding date: 4/28/20 Field Location: Y4

Julian date: 119 Harvest date: 9/11/20

Seeding rate: 12 plants/ft² Julian date: 255

Previous crop: Barley Soil type: Creston Silt loam Herbicide: 6/2, Stinger Tillage: Conventional

Insecticide: 6/25, Lambda-CY-AG

Soil residual nutrient
115-18-302

 $(NO_3^{-1}, P, K lb/A)$:

Fungicide: None Nutrient fertilizer applied (N, P₂O₅, K₂O, S lb/A): 94-20-35-10

Table 2. Performance of the canola varieties.

Entry	Yield*	TWT	OIL	FLDT	Height
	(lbs/A)	(lb/bu)	(%)	(julian)	(in)
InVigor L345PC	3544.3	51.9	49.9	178	57.6
InVigor L233P	3355.4	51.5	51.0	178	59.7
DKTF96SC	3346.2	52.5	49.4	177	56.9
DG 760TM	3174.1	51.6	51.0	177	57.4
Experimental #1	3138.5	51.7	50.3	178	59.8
CP930RR	3106.4	51.5	52.5	175	53.9
DG 200CL	3091.4	51.3	50.9	178	59.0
DKTFLL21SC	3070.9	51.5	50.8	176	52.9
BY 6204TF	3041.6	51.8	48.8	178	58.5
DKTF91SC	3041.4	51.9	50.6	176	56.9
DG 761TM	2968.4	51.8	51.3	178	60.1
CS2600CR-T	2928.9	51.9	50.3	177	59.0
CS2500CL	2927.3	51.9	51.7	178	58.7
CP9978TF	2912.9	51.9	50.3	176	58.7
NCC101S	2876.1	52.4	47.2	174	54.6
CP955RR	2853.5	51.8	51.4	176	57.3
CS2100	2795.8	51.9	50.5	177	58.2
CP9919RR	2538.2	51.7	49.2	174	53.2
BY19-6284CL	2533.8	51.5	51.3	178	59.5
CS2300	2430.7	51.2	52.2	178	64.5
Mean	2984.5	51.8	50.5	177	57.8
LSD (0.05)	475	0.6	1.4	1	5.3
CV %	11.2	8.0	1.9	0.4	6.4
Pr > F	<0.01	< 0.01	<0.001	<0.001	<0.05

^{*}Yield adjusted to 8.5% moisture TWT= test weight, FLDT=flowering date