Winter Canola Planting Date Trial – 2018/19

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Harrow, Ontario, Canada
Elevation: 191m
Location: 42°02'23.3"N 82°53'41.7"W
Experimental design: Randomized complete Split-plot design with Plant date as the whole plot and hybrids as the spit plot.
Plot size: 3 rows spaced 37.5cm apart, 6 m long; all three rows were harvested.

Fall Fertilizer: 6-24-24 @ 175kg/ha and 34-0-0 @ 75Kg/ha applied last week of August
Spring Fertilizer: 41-0-0-1(S)-0.744(B) @ 490Kg/ha and 21-0-0 @ 63 Kg/ha applied on April 13 2018

- Total fall N: 36Kg/ha (32.1lbs/acre)
- Total spring N: 215Kg/ha (191.9lbs/acre)
- Total spring S: 20Kg/ha (17.8lbs/acre)
- Total spring B: 3.7Kg/ha (3.3lbs/acre)

Soil type: Sandy Loam, pH = 5.8

Herbicide: Treflan (trifluralin) @ 0.6 kg/ha PPI

Planting information: 0.5”-1” planting depth, Monosem, 15” rows, Plate 7212

- Mercedes seeded at 3 lb/ac
- Inspiration at 3.4 lb/ac
- CC17070 at 3.5 lb/ac
- Sitro at 4.4 lb/ac

Entry	Seed Spacing (m)	Seeds/acre	Seeds/lb	lbs/acre
Mercedes	0.035	308,332.4	103,504	2.98
Inspiration	0.035	308,332.4	90,483	3.4
CC17070	0.035	308,332.4	88,576	3.5
Sitro	0.03	359,721.1	81701	4.4

Desiccant: Reglone (240g/L) @ 400 g a.i/ha and Agral 90 @ 1L/1000L.

Table 1. Percent stand loss over winter for four winter canola varieties and five planting dates.

	Sept 7	Sept 13	Sept 24	Oct 12	Oct 19
			%		
Mercedes	19	22	100	100	100
Inspiration	25	19	100	100	100
CC17070	48	36	100	100	100
Sitro	8	23	100	100	100
Mean	12	15	100*	100*	100*

*Note: Later plant dates in 2018 often failed to emerged because of heavy and prolonged rain after planting. Thus, the stand loss reported here is a combination of reduced and severely delayed emergence and the associated winterkill of the late emerging, under-sized rosettes.

Table 2. Date of full flowering; 50% flowers open on main raceme open (BBCH65) for four winter canola varieties and five planting dates.

	Sept 7	Sept 13	Sept 24	Oct 12	Oct 19
Mercedes	May 17	May 16	-	-	-
Inspiration	May 19	May 18	-	-	-
CC17070	May 15	May 15	-	-	-
Sitro	May 20	May 19	-	-	-

Table 3. Date of pod ripening; Beginning of ripening: all pods have reached final size, seed green, filling pod cavity (BBCH80) for four winter canola varieties and five planting dates.

	Sept 7	Sept 13	Sept 24	Oct 12	Oct 19
Mercedes	June 23	June 25	-	-	-
Inspiration	June 24	June 22	-	-	-
CC17070	June 20	June 19	-	-	-
Sitro	June 24	June 23	-	-	-

Table 4. Average plant height for four winter canola varieties and five planting dates. Heights were measured once pods reached full size.

	Sept 7	Sept 13	Sept 24	Oct 12	Oct 19
			cm		
Mercedes	157	160	-	-	-
Inspiration	157	157	-	-	-
CC17070	155	148	-	-	-
Sitro	140	126	-	-	-

Table 5. Date of seed maturity for earliest desiccant application for three winter canola hybrids and five planting dates. Desiccant was not applied at these dates but the crop was deemed mature enough to have done so.

	Sept 7	Sept 13	Sept 24	Oct 12	Oct 19
Mercedes	July 5	July 5	-	-	-
Inspiration	July 5	July 5	-	-	-
CC17070	July 2	July 2	-	-	-
Sitro	July 5	July 5	-	-	-

Table 6. Average yields reported at standardized 8.5% moisture for three winter canola hybrids and five planting dates.

	Sept 7	Sept 13	Sept 24	Oct 12	Oct 19
	Kg/ha (bu/acre)				
Mercedes	7903(141)	7177(128)	-	-	-
Inspiration	7417(132)	6961(124)	-	-	-
CC17070	6353(113)	5122(91)	-	-	-
Sitro	6909(118)	5161(91)	-	-	-
Mean	7145(126)	6105(108)	-	-	-