

Winter Canola Planting Date Trial – 2017/18

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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.

Fall Fertilizer: 16-24-24 @ 175kg/ha

Spring Fertilizer: 41-0-0-1(S)-0.744(B) @ 490Kg/ha and 21-0-0 @ 63 Kg/ha applied on April 13 2017

- Total fall N: 40Kg/ha (35.7lbs/acre)
- Total spring N: 215Kg/ha (191.9lbs/acre)
- Total spring S: 20Kg/ha (17.9lbs/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" planting depth, Monosem, 15" rows, Plate 7212, PPD~890,000 plants/ha

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

Variety	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 1	Sept 11	Sept 26	Oct 10	Oct 20
	%				
Mercedes	5	11	23.25	66	100
Inspiration	13	9	23	82	99
CC17070	21	28	12	87	98
Sitro	8	11	32	100	100
Mean	12	15	20	84	99

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

	Sept 1	Sept 11	Sept 26	Oct 10	Oct 20
Mercedes	May 13	May 12	May 15	May 20	-
Inspiration	May 13	May 14	May 17	May 21	-
CC17070	May 10	May 10	May 11	May 17	-
Sitro	May 15	May 15	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 1	Sept 11	Sept 26	Oct 10	Oct 20
Mercedes	June 4	June 4	June 9	-	-
Inspiration	June 3	June 4	June 8	-	-
CC17070	June 2	June 2	June 6	-	-
Sitro	June 4	June 5	June 10	-	-

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

	Sept 1	Sept 11	Sept 26	Oct 10	Oct 20
	cm				
Mercedes	163	155	143	111	-
Inspiration	173	162	158	103	-
CC17070	153	149	128	111	-
Sitro	163	160	130	-	-

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 1	Sept 11	Sept 26	Oct 10	Oct 20
Mercedes	June 28	June 28	July 2	July 09	-
Inspiration	June 27	June 28	July 2	July 09	-
CC17070	June 25	June 25	June 27	June 03	-
Sitro	June 27	June 27	July 2	-	-

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

	Sept 1	Sept 11	Sept 26	Oct 10	Oct 20
	Kg/ha (bu/acre)				
Mercedes	7502(134)	6733(120)	3987(71)	1438(26)	-
Inspiration	6276(112)	6351(113)	4138(74)	1472(26)	-
CC17070	6471(115)	6319(112)	5641(101)	1889(34)	-
Sitro	6604(118)	6147(110)	2952(53)	-	-
Mean	6713(120)	6387(114)	4179(75)	1600(29)	-

Figure 5. Comparison of percent light interference from canopy coverage in winter canola plots vs. winter rye plots.

Winter canola planted: September 11, 2017

Winter rye planted: November 1, 2017

Winter canola seeding rate: 3 lbs/ac

Winter rye seeding rate: 250-350 seeds/m²

