

2016 Seeding Rate Interactions with Row Spacing in Canola at Minot

Interactions

Row Spacing	Seeding Rate	Plant Stand	Days to Bloom	Duration of Bloom	Days to Mature	Plant Height	Oil Content	Yield
	pls/A	plants/A	DAP*	days	DAP*	inches	%	lbs/A
10"	200,000	216,348	42	26	90	39	42.6	1155
	400,000	236,676	43	25	87	42	45.7	1030
	600,000	341,220	41	25	85	40	47.5	1314
	800,000	409,464	41	24	85	38	46.5	1260
20"	200,000	211,992	42	26	88	39	47.8	1592
	400,000	402,204	42	24	82	38	47.6	1762
	600,000	557,568	41	23	78	39	49.1	1688
	800,000	618,552	41	21	79	38	47.8	1714
30" Twin Row	200,000	204,732	42	26	86	39	47.9	1008
	400,000	339,768	42	24	81	35	49.2	834
	600,000	386,232	42	24	78	36	48.4	846
	800,000	438,504	42	23	80	37	48.3	1067
C.V. %		10.8	1.3	5.7	4.0	8.2	3.6	20.4
LSD 5%		56,673	1	2	5	NS	2.4	374

Row Spacing Comparisons

Row Spacing	Plant Stand	Days to Bloom	Duration of Bloom	Days to Mature	Plant Height	Oil Content	Yield
	plants/A	DAP*	days	DAP*	inches	%	lbs/A
10"	300,927	42	25	86	40	45.6	1190
20"	447,579	41	23	82	38	48.1	1689
30" Twin	342,309	42	24	81	37	48.4	939
LSD 5%	89,846	NS	1	3	2	1.4	179

Seeding Rate Comparisons

Seeding Rate	Plant Stand	Days to Bloom	Duration of Bloom	Days to Mature	Plant Height	Oil Content	Yield
pls/A	plants/A	DAP*	days	DAP*	inches	%	lbs/A
200,000	211,024	42	26	88	39	46.1	1252
400,000	326,216	42	24	83	38	47.5	1209
600,000	428,340	41	24	80	38	48.4	1283
800,000	488,840	41	23	81	38	47.5	1347
LSD 5%	72,184	1	1	3	NS	NS	NS

*DAP = days after planting.

NS= no statistical difference.

Planting Date: June 7

Harvest Date: September 17

Variety = HyCLASS 930

Soil Type: Williams Loam

Previous Crop: spring wheat

Tillage: Minimum Till

Summary: Canola is known for its flexible growth habit with respect to plant populations. Many population studies have shown the remarkable ability of this crop to produce good yields with minimal stands. In the past, seeding rate recommendations were often based on crop stand competition for weed control and on the ability of seeding equipment to effectively meter this small seed. Today's modern metering systems and seeding equipment are capable of applying precise seeding rates and in some instances, seed singulation. This trial was sown with a SRES precision planter using adjustable row units and seed singulation technologies. This initial study showed no statistical difference between seeding rates for yield, oil content or plant height. Lighter stands tended to have an extended flowering period and delayed maturity. Row spacing comparisons showed statistically significant differences for stand establishment, duration of flowering, days to mature, plant height, oil content and yield. Stand establishment was significantly higher with the 20" rows compared to the 10" and 30" twin rows, resulting in a significantly higher yield. In general, the relatively low yields of this trial were probably a result of the late seeding date. Results of this study should be viewed with caution and not as recommendations for production practices without further