

## Seeding Rate Interactions with Row Spacing in Carinata at Minot

This trial was designed to investigate interactions between various seeding rates and row spacing of carinata in order to define optimal production practices with these variables.

### Interactions

Row Spacing	Seeding Rate	Plant Stand	Days to Bloom	Duration of Bloom	Days to Mature	Plant Height	Yield
	pls/A	plants/A	DAP*	days	DAP*	inches	lbs/A
10"	200,000	171,336	47	23	87	55	2450
	400,000	159,720	46	23	88	51	2378
	600,000	261,360	46	24	88	51	2171
	800,000	270,072	46	24	88	54	2501
20"	200,000	89,298	47	24	88	52	1754
	400,000	156,816	47	23	87	53	2119
	600,000	182,226	47	23	87	53	2049
	800,000	183,678	46	24	86	52	1960
30" Twin Row	200,000	155,364	47	25	89	52	1824
	400,000	213,444	46	24	88	53	2105
	600,000	258,456	47	24	89	52	1880
	800,000	278,784	47	25	89	55	2221
C.V. %		12.9	1.3	3.0	1.5	6.5	12.8
LSD 5%		36,861	NS	NS	NS	NS	389

### Row Spacing Comparisons

Row Spacing	Plant Stand	Days to Bloom	Duration of Bloom	Days to Mature	Plant Height	Yield
	plants/A	DAP*	days	DAP*	inches	lbs/A
10"	215,622	46	23	88	53	2375
20"	153,004	46	23	87	53	1970
30" Twin	226,512	47	24	88	53	2007
LSD 5%	38,400	NS	NS	NS	NS	203

### Seeding Rate Comparisons

Seeding Rate	Plant Stand	Days to Bloom	Duration of Bloom	Days to Mature	Plant Height	Yield
pls/A	plants/A	DAP*	days	DAP*	inches	lbs/A
200,000	138,666	47	24	88	53	2009
400,000	176,660	46	24	87	53	2201
600,000	234,014	46	23	88	52	2033
800,000	244,178	46	24	88	54	2228
LSD 5%	37,131	NS	NS	NS	NS	NS

\*DAP = days after planting.

Planting Date: June 2

Variety = AAC A120

Previous Crop: spring wheat

NS= no statistical difference.

Harvest Date: September 19

Soil Type: Williams Loam

Tillage: Minimum Till

**Summary:** B. carinata is a new crop being developed as a renewable biofuel feedstock. Row spacing and planting rates have primarily been based on experience with canola and have not been studied in North Dakota. This trial was sown with a SRES precision planter using adjustable row units and seed singulation technologies. This initial study showed a significantly higher yield with 10 inch rows than with 20 inch rows or twin rows. Seeding rates appear to be self-limiting with the number of live plants remaining fairly constant despite increasing rates. There was no direct relationship between seeding rates and yield with this study. Results of this study should be viewed with caution and not as recommendations for production practices without further verification.