Factsheet: The Effect of Seeding Between Rows on Canola

Objective:

The objective of this experiment was to determine the impact of previous stubble rows on seed placement and emergence in canola (seeding on the previous row, in-between rows and random).

Methodology:

This demonstration was conducted at the AAFC Scott Research Farm in 2017. A randomized complete block design arranged as a 2 x 3 factorial with four replicates was used. Three seeding directions (inter-row, on-the-row and random) relative to the previous crop were used at two canola seeding rates (3 lbs/ac and 5 lbs/ac). Canola (L140P) was directly seeded into wheat stubble using an R-tech plot drill with a seeding rate of 115 seeds m^{-2}. Fertilizer was applied according to soil test recommendations to target 40 bu/ac. Pesticides were applied as required.

Table 1. Treatment list representing seeding rate and direction

Trt #	Seeding Rate (lbs/ac)	Seeding Direction
1	3	Inter-row
2	5	Inter-row
3	3	On-the-row
4	5	On-the-row
5	3	Random
6	5	Random

Key Findings:

- The results from this project are circumspect due to low plant stand caused by high insect activity. Plots had to be sprayed with insecticide but plant density was severely affected.
- No effects for yield at two seeding rates or seeding direction were detected. The oil content results, like yield, when seeded at a higher rate had a tendency for higher oil content.
- The other variable assessed was vigour and as with the other evaluated parameters, no differences were observed, although the higher seeding rate tends to have a better vigour rating.
- We hypothesized that due to the low plant stand, the effects of the different seeding rates and direction were masked and that is the reason for a lack of response to the treatments. Additionally, the plastic attributes of canola likely compensated for the low plant stand, minimizing the negative impact on yield.

The full report is available at www.warc.ca. Project was supported by the Agricultural Demonstration of Practices and Technologies (ADOPT) initiative under the Canada-Saskatchewan Growing Forward 2 bi-lateral agreement
WARC Project # 20-17
ADOPT Project #20160380

- Furthermore, our results determined that seeding direction played a very little role in overall yield production, as well as any seed quality parameters.
- Without the reduced plant stand, the results could have been more determinant and differences among treatment could be observed.

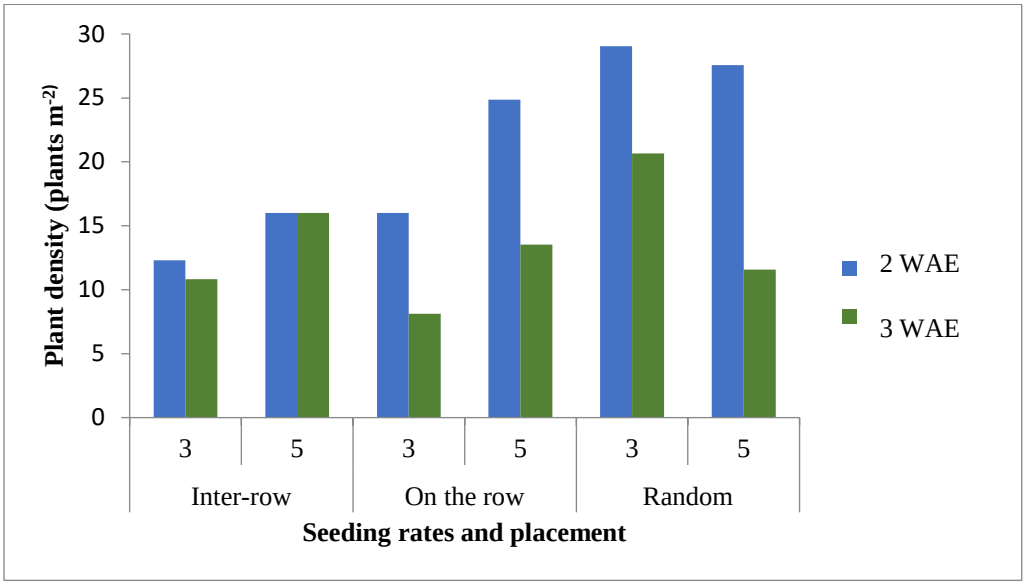

Figure 1. Canola plant density at two and three weeks after seeding with two seeding rates and three seeding placement.at Scott, SK in 2017.

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