Evaluation of Seed Treatments to Manage Blackleg on Canola

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Objective: To evaluate seed treatments to manage blackleg on canola.

Materials and Methods:

The objective of this research trial, conducted at the Langdon Research Extension Center, was to evaluate the performance of seed treatments to manage blackleg on canola. The trial, which commenced on May 17, 2024, involved the planting of treated seed with various treatments on the canola cultivar 'InVigor L233P'. These treatments were then compared with the non-treated seed. The design was a randomized complete block with four replications. The trial adhered to state recommended practices for land preparation, fertilization, seeding rate, weed and insect control. The plot size was 5 ft. wide x 16 ft. long, and the research plots were inoculated twice with ascospores of the blackleg pathogen at the 2-4 leaf stage. Twenty-five canola stubbles were rated within each plot, and the incidence and severity of blackleg infections were recorded on a 0-100 scale after swathing on August 5. The data were subjected to analysis of variance using complete block, balanced orthogonal designs of Agrobase generation II software.

Table 1: Effect of fungicide seed treatments on mean plant stand, phytotoxicity, blackleg (disease) incidence, severity, yield and test weights.

Treatments	Plant Stand	Phytotoxicity	Vigor	Blackleg		Yield	Test Wt.
	3 ft/row	(0-9)	(1-5)	% Incidence	% Severity	lbs/A	lbs/bu
Experimental	24	0.3	2	46	26	2642	51
Saltro	20	0.0	2	41	20	2066	51
Evergol Energy	16	0.5	2	57	34	1874	52
Intego Solo	17	0.0	2	51	24	2077	52
Rancona Summit	15	0.3	2	42	23	1873	52
Trilex	19	0.0	2	61	37	1894	52
Non-Treated	16	0.0	3	71	43	1563	52
Mean	**18**	**0.14**	**2.04**	**53**	**29**	**1998**	**51.5**
CV%	**30**	**211**	**14.84**	**17**	**24**	**11**	**0.4**
LSD	**8**	**0.45**	**0.45**	**14**	**11**	**314**	**0.3**
P-Value (0.05)	**NS**	**NS**	**NS**	**0.0018***	**0.0024***	**0.0001***	**0.0034***

Results: The research results show canola seed treatments have practical implications for crop protection. Canola seed treated with the fungicide Saltro® showed the lowest blackleg incidence and severity, followed by Rancona Summit® and the experimental. These results, which are statistically different from the other treatments tested, provide crucial insights into blackleg incidence and can guide farmers and agronomists in their crop protection strategies (Table 1).