

**Evaluation of Seed Treatments to Manage Blackleg on Canola**  
Venkat Chapara, Amanda Arens and Larissa Jennings

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

**Materials and Methods:**

This research trial was conducted at the Langdon Research Extension Center with an objective to evaluate the performance of seed treatments to manage blackleg on canola. The trial was planted on May 23, 2023 with treated seed of various treatments on the canola cultivar ‘Westar’ and compared with non-treated seed. The design was randomized complete block with four replications. The trial followed state recommended practices for land preparation, fertilization, seeding rate, weed and insect control. The plot size was 5 ft. wide x 16 ft. long. Data on blackleg infections were rated following the scale of 0-5. The research plots were inoculated twice with ascospores of the blackleg pathogen at 2-4 leaf stage. Twenty-five canola stubbles were rated within each plot and the incidence (number of plants that had blackleg infections out of twenty-five cut stems) and severity on each was recorded after swathing (August 18). A 0-5 scale was used to rate disease severity, where 0 = no disease tissue visible in the cross section; 1 =  $\leq$  25% of the cross section has disease tissue; 2 = 26 to 50% of the cross section has disease tissue; 3 = 51 to 75% of the cross section has disease tissue; 4 =  $\geq$  75% of the cross section has disease tissue; 5 = 100% diseased tissue/plant dead. A blackleg mean disease severity index was calculated with weighted mean of incidence and number of plants in each severity rating. Data were subjected to analysis of variance using complete block, balanced orthogonal designs of Agrobase generation II software.

**Table 1:** Mean blackleg disease incidence, severity and their effect on plant stand, yield and test weights on the application of different seed treatments on canola.

Seed Treatments	Blackleg on Canola			Yield (lbs/a)	Test Weight (lbs/bu)
	Plant Stand	% Incidence	% Severity		
Vercoras	18	36	29	3485	51.7
Saltro	18	45	45	2795	52.3
Evergol Energy	17	41	42	2898	52.4
Intego Solo	16	31	33	2579	52.6
Rancona Summit	19	35	42	2722	52.3
Trilex	24	38	28	2669	52.4
Non-Treated	18	53	50	2790	52.3
<b>Mean</b>	<b>18</b>	<b>40</b>	<b>39</b>	<b>2848</b>	<b>52.3</b>
<b>CV%</b>	<b>22.0</b>	<b>21</b>	<b>39</b>	<b>9</b>	<b>0.5</b>
<b>LSD</b>	<b>6</b>	<b>13</b>	<b>NS</b>	<b>365</b>	<b>0.4</b>
<b>P-Value (0.05)</b>	<b>0.0041*</b>	<b>0.0321*</b>	<b>NS</b>	<b>00.15*</b>	<b>0.0094*</b>

**Results:** Canola seed treated with Intego Solo had the lowest blackleg incidence, followed by Rancona Summit and Vercoras. These results are significantly statistically different from the other treatments tested. The seed treatment Vercoras® showed significant difference in yield from the other treatments tested (Table 1).