

Evaluation of Fungicides to Manage White Mold in Canola

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A research trial was conducted at the Langdon Research Extension Center with an objective to evaluate the performance of fungicides to manage white mold in canola. The trial was planted on May 21, 2020 with the Roundup Ready canola variety ‘Nexera 1024RR’ in a randomized complete block design replicated four times. The trial followed state recommended practices for land preparation, fertilization, seeding rate and weed control. The plot size was 5 ft. wide x 16 ft. long with a canola border on either side of each plot. The trial was irrigated with an overhead sprinkler system set at one hour each day beginning one week before the start of bloom to four weeks after bloom to help increase disease infection levels. Fungicides were applied at 20% bloom using a CO₂-pressurized backpack style sprayer with a three-nozzle boom (XR-8002) at 20 GPA. The amount of white mold infection obtained in the research plots was natural. Fifty plants were rated within each plot and the levels of incidence and severity were recorded for each plant prior to swathing (August 18) on a 0-5 scale, where 1 = superficial lesions or small branch infected; 2 = large branch(es) dead; 3 = main stem at least 50% girdled; 4 = main stem girdled but plant produced good seed; 5 = main stem girdled, much reduced yield. A white mold disease severity index (DSI) was calculated with weighted mean of incidence and the number of plants in each severity rating.

Table 1: Efficacy of commercially available fungicides in managing white mold and their influence on yield and test weight.

Treatments	Rate	Incidence (%)	Disease Severity Index (0-5)	Yield (lbs/a)	Test Weight (lbs/bu)
Non-Treated	Check	13	1.28	1463	52
Miravis Neo	13.7 fl oz./a	6	1.15	1598	52
Proline	5 fl oz./a	3	0.5	1491	51
Priaxor	6 fl oz./a	3	1	1505	51
Topsin	1 lb/a	4	1.35	1753	52
Quash	3 lbs/a	3	0.88	1487	52
Mean		5	1	1550	52
CV %		105	73	21	1
LSD		NS	NS	NS	NS
P-Value (0.05)		0.13	0.64	0.8	0.74

Non-Ionic Surfactant (NIS) was added to all the fungicide treatments at 0.25% V/V.

NS: Statistically Non-significant

Results: No significant differences in white mold incidence, disease severity index (DSI), test weight, or yield were observed among the fungicides tested and the non-treated check (p-value non-significant).

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