

Seed Treatment and Foliar Fungicide Options for Flax

Field trials with flax were initiated in the spring of 2018 at multiple Saskatchewan locations to evaluate crop response to selected seed-applied and foliar fungicide options. They included Indian Head, Redvers, Outlook, Swift Current, Scott, and Prince Albert. The treatments were a factorial combination of three seed-applied fungicide treatments (untreated, Vitaflo-280, and Insure Pulse) and three foliar-applied fungicide treatments (untreated, Headline EC, and Priaxor). All products were used as per label recommendations and the foliar fungicide applications were targeted for 7-10 days after the first flowers were observed. The objective of this project was to demonstrate the response of flax to various seed-applied and foliar fungicide options with a focus on establishment, maturity, and yield

Where appropriate, response data were statistically analysed and included days to emergence, plant densities, pasmo ratings, maturity, and seed yield. There were no treatment effects on days to emergence, lodging, or maturity at any locations. Plant populations were increased with both Insure Pulse and, to a lesser extent, Vitaflo-280 at 1/5 locations and Insure Pulse increased yield by 13% at the same site. The response was observed at Prince Albert, the coolest and wettest of the locations. Very little pasmo was observed, with no symptoms whatsoever recorded at 3/5 sites. At Indian Head, the average rating was 2.8/9 with a small reduction in visible symptoms with fungicide; however, conditions went from wet to dry at this location and disease never progressed past the lower leaves.

Under these conditions, foliar fungicides did not result in significant yield benefits at any locations. Although the dry conditions were not conducive for demonstrating the relative performance and potential benefits of seed-applied and foliar fungicide options, these results reinforce the importance of crop scouting and illustrate that benefits to crop protection products are unlikely in the absence of the pests that they are registered to control.

Main effect means for treatment effects on flax seed yield. Data were analysed separately for each location. Means within each column followed by the same letter do not significantly differ (Fisher's protected LSD test, $P \leq 0.05$).

Main Effect	Indian Head	Redvers	Sw. Current	Scott	Prince Albert
----- Seed Yield (kg/ha) -----					
<u>Seed Treatment</u>					
Control	2056 a	1481 a	1097 a	1449 a	1830 b
Vitaflo-280	2075 a	1608 a	1054 a	1434 a	1848 b
Insure Pulse	2027 a	1629 a	1156 a	1453 a	2063 a
S.E.M.	48.3	216.8	86.0	26.1	121.8
<u>Fungicide</u>					
Control	2047 a	1480 a	1063 a	1452 a	1834 a
Headline EC	2081 a	1496 a	1156 a	1438 a	1936 a
Priaxor	2031 a	1741 a	1033 a	1445 a	1973 a
S.E.M.	48.3	216.8	86.0	26.1	121.8

Previous field trials with seed treatments have produced results ranging from no benefit to higher plant populations with a tendency for higher yields. The current results reinforce the recommendation that benefits to seed treatments under field conditions are variable and presumably less likely when using high quality seed and good seeding practices. While past field trials have shown potentially strong yield responses and effects on maturity with foliar fungicide applications under higher disease pressure, the current results are consistent with other previous cases where disease pressure was low.

Full report at: www.warc.ca

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