

# Factsheet: Seed Treatment and Foliar Fungicide Options for Flax



## Objective:

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.

## Methodology:

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.

Table 1. Flax seed treatment and foliar fungicide treatments at multiple Agri-ARM sites in 2018.

#	Seed Treatment	Foliar Fungicide
1	None	None
2	None	0.395 l Headline EC/ha (0.16 l/ac)
3	None	0.445 l Priaxor/ha (0.18 l/ac)
4	525 ml Vitaflo-280/100 kg seed	None
5	525 ml Vitaflo-280/100 kg seed	0.395 l Headline EC/ha (0.16 l/ac)
6	525 ml Vitaflo-280/100 kg seed	0.445 l Priaxor/ha (0.18 l/ac)
7	600 ml Insure Pulse/100 kg seed	None
8	600 ml Insure Pulse/100 kg seed	0.395 l Headline EC/ha (0.16 l/ac)
9	600 ml Insure Pulse/100 kg seed	0.445 l Priaxor/ha (0.18 l/ac)

Headline EC (250 g/l pyraclostobin); Priaxor (167 g/l fluxapyroxad plus 333 g/l pyraclostrobin) Vitaflo-280 (15.59% carbathiin plus 13.25% thiram); Insure Pulse (16.7 g/l pyraclostrobin plus 16.7 g/l fluxapyroxad plus 13.3 g/l metalaxyl)

## Key Findings:

- There were no treatment effects on days to emergence, lodging, or maturity at any locations.

The full report is available on [www.warc.ca](http://www.warc.ca). This project was funded by the Agricultural Demonstration of Practices and Technologies (ADOPT) initiative under the Canada-Saskatchewan Growing Forward 2 bi-lateral agreement and the Saskatchewan Flax Development Commission

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- 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, Prince Albert.
- 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.
- 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.
- 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.

Table 2. 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

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