

Trial Summary **NEW TRIAL TYPE** Harvest Management Trial

Research Question:

How does harvest management impact *Verticillium* stripe severity at harvest and the amount of *Verticillium* inoculum returned to the soil.

Treatments:

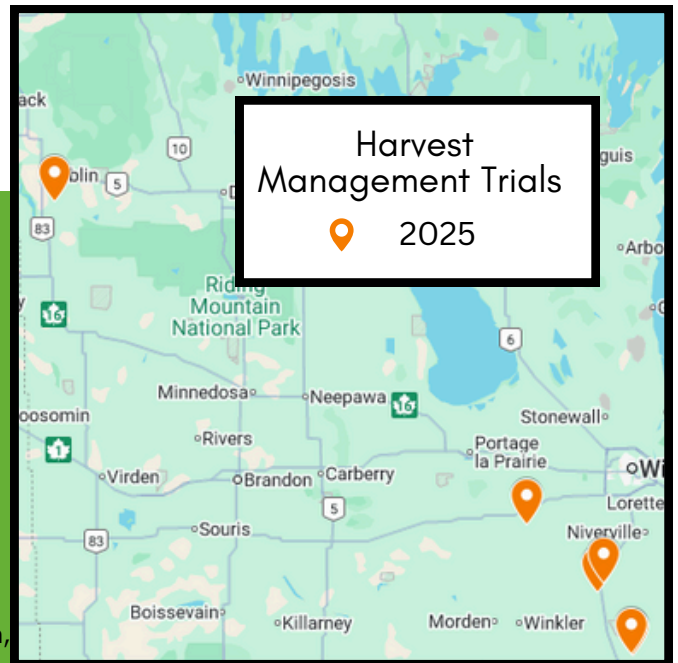
1. Straightcut
2. Swath

Trial Setup:

Randomized complete block, each treatment was one equipment width (swather or combine header) x field length, with 4 replicates per location (8 strips per location).

Data Collection:

Pre-seed soil *verticillium* content, *verticillium* incidence and severity at swathing and post-harvest, grain yield, spring 2026 soil *verticillium* content.



Harvest Management Trial Layout



Verticillium stripe severity scale



Incidence = % of plants displaying visual symptoms of disease
Severity = average rating of diseased plants according to *Verticillium* scale

NOTE 1 HM trial was excluded from data analysis due to sampling errors - data is presented from 5 locations for the 2025 season.

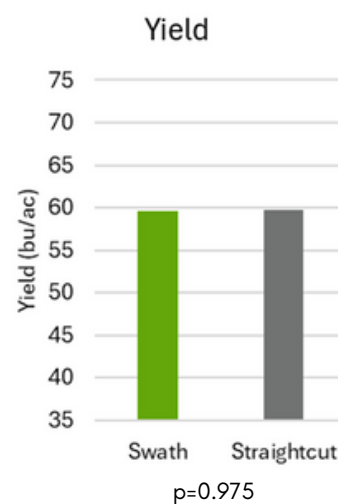
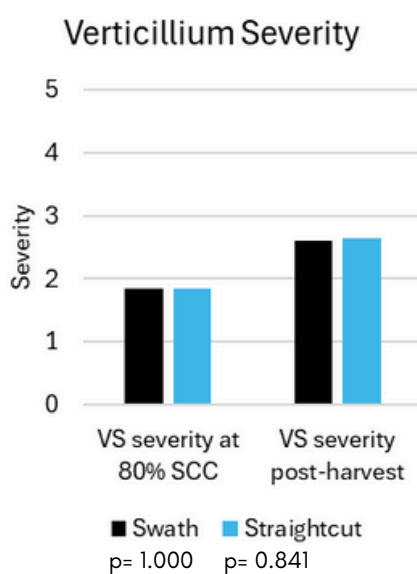
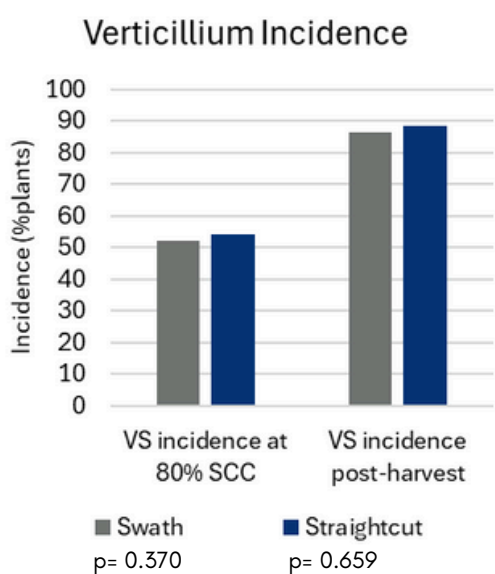
Background: This trial utilizes field-scale plots to investigate the behaviour of VS inoculum from year to year. Although VS infection occurs through the roots, yield-damaging symptoms and the production of black microsclerotia (inoculum) only appear as plants progress through maturity. Considering the timing of two common canola harvest management practices, swathing and straightcutting, this trial was prompted to investigate whether either practice causes differences in 1) VS severity and yield; 2) VS inoculum returned to soil for following seasons.

2025 Results Summary

Harvest Management Trial

2025 Trial Sites

Trial ID	RM	Seeding Date	Swath Date	Straightcut Date
HM_01	Morris	May 6, 2025	August 13, 2025	September 8, 2025
HM_02	Grey	May 9, 2025	August 25, 2025	September 23, 2025
HM_03	Emerson-Franklin	May 13, 2025	August 24, 2025	September 10, 2025
HM_04	Emerson-Franklin	May 12, 2025	August 23, 2025	September 8, 2025
HM_05	Morris	May 6, 2025	August 12, 2025	August 27, 2025



Within each trial location, treatments with different lowercase letters are significantly different at 95% confidence level ($p < 0.05$). Locations with no lowercase letters listed indicate an insignificant treatment effect.

Verticillium incidence and severity: Verticillium stripe was identified at all 5 trials across 3 different RMs. No significant differences in VS incidence or severity were identified between swath and straight-cut treatments at 80% SCC or post-harvest timing.

Yield: Significant differences in yield varied across trials: 2 trials observed increased yield (+2.7 bu/ac and +4.6 bu/ac) when swathing, 1 trial observed increased yield (+2.7 bu/ac) when straightcutting, and 2 trials observed no statistically significant differences. When the data was combined, yield was unaffected by the choice of swathing or straightcutting across 2025 trials.

NOTE Soil samples will be collected from all HM plots before seeding in spring 2026 - the verticillium inoculum load will then be compared between harvest management practices.