Management of Phoma black stem with fungicide

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Outline

- *Phoma macdonaldii*
- Objective
- Trials

Importance of Phoma Black Stem

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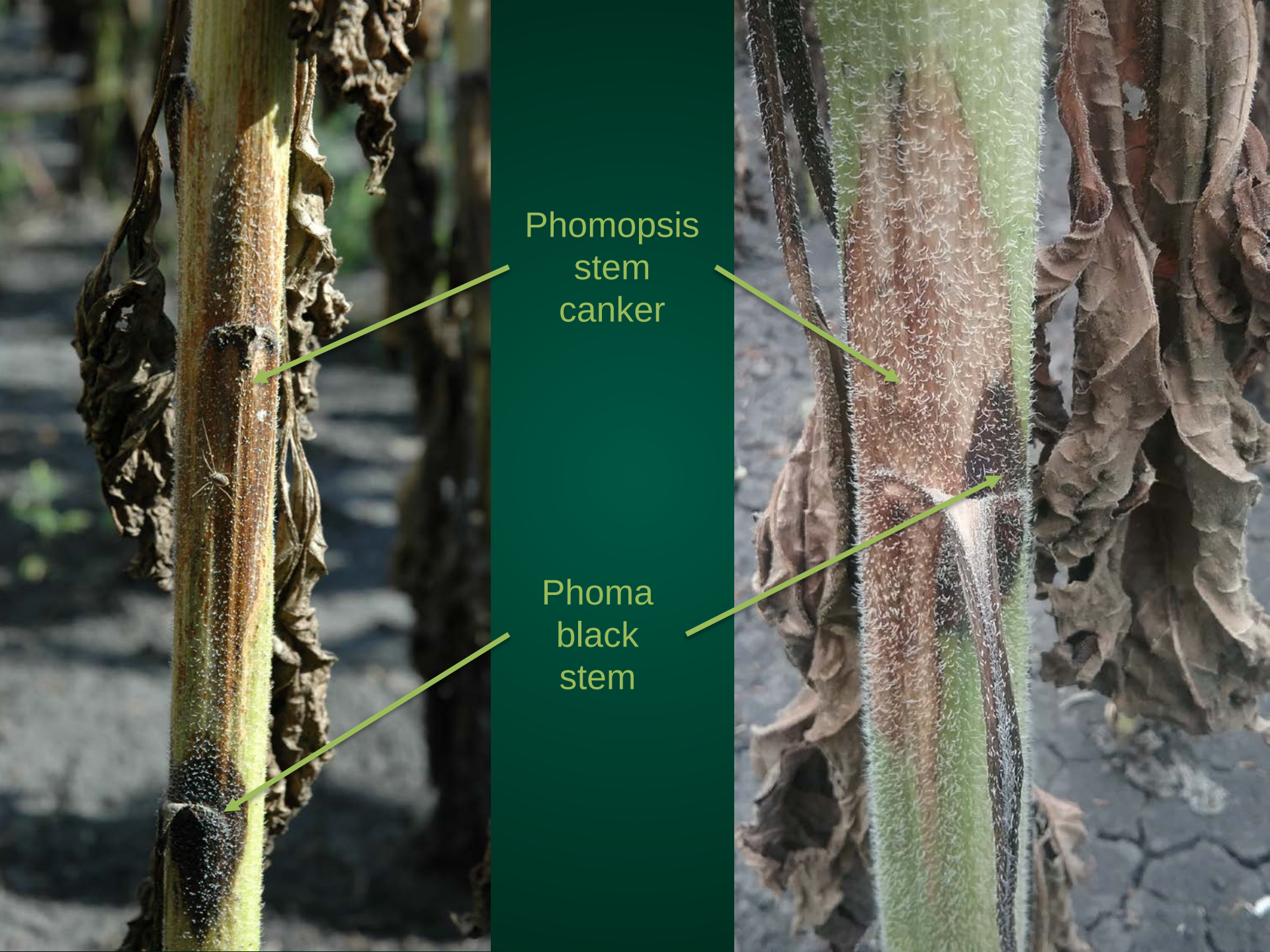
Phoma macdonaldii


Phomopsis
stem
canker
Phoma
black
stem

Objective

Evaluate the timing of pyraclostrobin application on two oil type sunflower hybrids under natural infection.

Materials and Methods

- Two adjacent fungicide trials
- Two oil type sunflower hybrids
- Davenport, ND in 2017
- RCBD with four replications
- Pyraclostrobin was applied to the middle two rows of plots singly and in combination at plant stages V8, R1 and R4

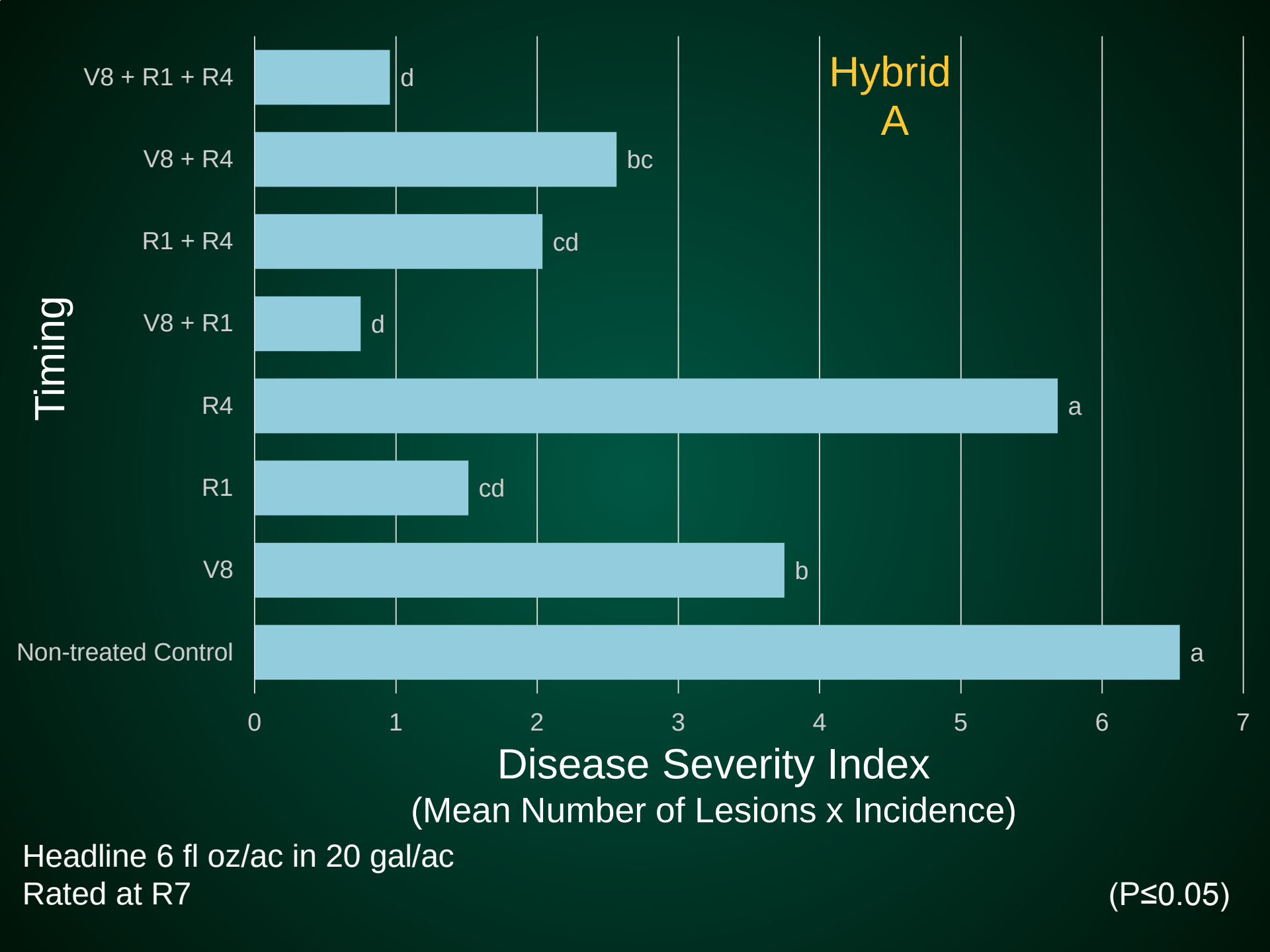
V8

Disease Pressure

A natural epidemic of Phoma black stem developed in both trials with 100% incidence in the non-treated control plots.

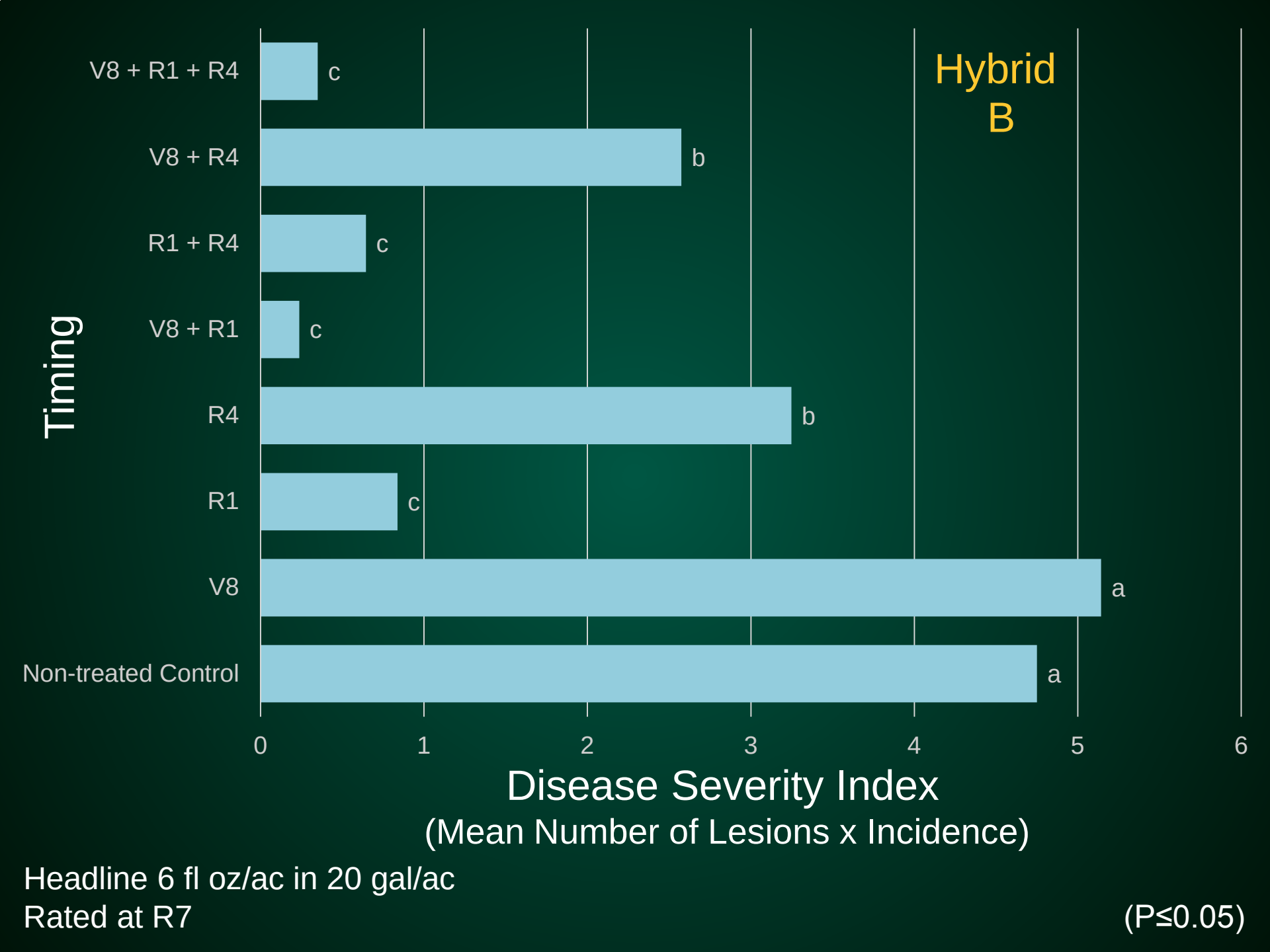
Disease severity index = incidence x severity

Incidence = number of stems infected out of ten
Severity = mean number of stem lesions



Headline 6 fl oz/ac in 20 gal/ac
Rated at R7

(P≤0.05)



Headline 6 fl oz/ac in 20 gal/ac
Rated at R7

(P≤0.05)

Headline 6 fl oz/ac in 20 gal/ac

No significant differences (P≤0.05)

Headline 6 fl oz/ac in 20 gal/ac

(P≤0.05)

Results and Conclusions

- Phoma black stem can be managed with Headline
- Headline significantly ($P \leq 0.05$) reduced disease severity for both oilseed hybrids
- Headline significantly ($P \leq 0.05$) increased yield for one of the oilseed hybrids
- R1 appears to be the most effective fungicide timing

Future Plans

- Hope for the best with future Phomopsis stem canker trials and continue to make lemonade out of lemons
- Repeat the experiment with more hybrids, more fungicides and in other locations with a history of Phoma black stem

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