

#031

Maintaining Blackleg Resistance in a Commercial Breeding Program

ADDRESS

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Blackleg disease is one of the top disease concerns for canola growers in Australia, Canada and Europe. Within Canada and Europe, since the first deployment of blackleg resistant varieties of rapeseed, an expectation has become established that seed developers will continue to deliver blackleg resistance. The blackleg pathogen *Leptosphaeria maculans* has demonstrated the ability to adapt to resistance genetics, rapidly in some cases. This poses a challenge to seed breeders to stay ahead of pathogen adaptation within the constraints of varietal development timelines and the need to balance breeding effort for blackleg resistance with selection for improved yield, maintenance or improvement of quality and agronomic traits as well as resistance to other disease. We discuss how a focus on combining quantitative resistance to blackleg with a diversity of qualitative resistance genes is shaping our breeding strategy. Partnering breeders and scientists working on the same disease across different global regions has facilitated sharing of resources and expertise to assist resistance breeding in each geography. We also discuss how we anticipate providing a selection of new hybrids with different sets of resistance traits to growers, which will be grown at different times and places, and will provide disruptive selection on pathogen populations at a landscape scale.

PLENARY TALKS

ORALS

POSTERS

WORKSHOPS