0203-HO-076 Efficacy of foliar fungicides in controlling barley scab in lines with partial resistance.

PI: Horsley, Richard; E-mail: Richard_Horsley@ndsu.nodak.edu
North Dakota State University, Department of Plant Sciences, Fargo, ND 58105-5051
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PROJECT ABSTRACT
(1 Page Limit)

The objective of this study is to determine if the integrated use of fungicides and barley cultivars with partial resistance to *Fusarium* head blight (FHB) will control FHB severity and accumulation of deoxynivalenol (DON). Experiments will be conducted in the field and include genotypes that are resistant, partially resistant, and susceptible to FHB. Research conducted to test the efficacy of fungicides in controlling FHB and DON levels in barley have been conducted using cultivars (i.e. Robust, Foster, and Stander) that are susceptible to FHB. Results indicate that fungicides had little to no effect in reducing DON levels. Minimal information is available on the efficacy of fungicides in controlling FHB and DON levels on genotypes with partial FHB resistance. Fusarium head blight, incited primarily by *Fusarium graminearum*, adversely affected the quality of barley grown in eastern North Dakota and northwestern Minnesota the last nine years. Quality of harvested grain was reduced because of blighted kernels and the presence of DON, a mycotoxin produced by the pathogen. Zero or low levels of DON are needed for malting barley because DON has been found to carry through malting and brewing into finished beer.