

0203-HO-077 Screening barley lines for scab resistance in uniform nurseries.

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Grant #: 59-0790-9-043; \$11,440; 1 Year

Research Area: VDUN

PROJECT ABSTRACT

(1 Page Limit)

The objective of this project is to screen elite barley germplasm for resistance to *Fusarium* head blight (FHB) in uniform screening nurseries in Minnesota and North Dakota. A mist irrigated uniform FHB screening nursery, called the MinnDak Uniform FHB Screening Nursery, has been grown at two sites in Minnesota and two sites in North Dakota the past six growing seasons. This nursery includes breeding lines with putative FHB resistance from four upper Midwest barley-breeding programs, and susceptible and resistant checks. In 2000, three dryland nursery sites were added to compliment the mist-irrigated sites. *Fusarium* head blight severity and deoxynivalenol (DON) accumulation are determined for each entry, and each entry is replicated at least twice per location. Results from the MinnDak nursery are circulated to all barley researchers who desire them in the form of a report that is posted on the web. Mist-irrigated nurseries that are inoculated with *Fusarium graminearum* are needed so data can be collected even in years when environmental conditions are not conducive for natural infection. Uninoculated dryland nurseries are grown so lines can be grown under conditions similar to those experienced by producers.