0203-HO-075 Evaluation of barley germplasm for resistance to Fusarium head blight in an off-season nursery in China.

PI: Horsley, Richard; E-mail: Richard_Horsley@ndsu.nodak.edu
North Dakota State University, Department of Plant Sciences, Fargo, ND 58105-5051
Grant #: 59-0790-9-043; $19,740; 1 Year
Research Area: GIE

PROJECT ABSTRACT
(1 Page Limit)

The ultimate goal of this project is to develop malting barley cultivars resistant to Fusarium head blight. Breeding materials from four upper Midwest barley improvement programs will be screened in an off-season nursery at Zhejiang University – Hangzhou, China. This nursery has been used for screening upper Midwest barley germplasm since 1995 and about 3,500 entries are screened each year. Materials to be included in the 2001-02 nursery include one mapping population developed at North Dakota State University, one mapping population developed at the University of Minnesota, and elite lines from all upper Midwest barley breeding programs. Use of this nursery allows for an additional field screen for FHB resistance each year and screening of materials from all Midwest barley improvement programs at a common location where FHB is the only head blighting disease. Head blight caused by bacterial or other fungal pathogens often confounds the results observed in the upper Midwest U.S. Another unique feature oft the nursery is that the range in heading date between barley lines with a spring, winter, or facultative growth habit is less than two weeks. Use of this off-season nursery will reduce the time needed to produce improved barley cultivars with FHB resistance.