

PI: Richard Horsley

PI's E-mail: Richard.Horsley@ndsu.nodak.edu

Project ID: 0405-HO-112

FY03 ARS Agreement #: 59-0790-9-043

Research Area: VDUN

Duration of Award: 1 Year

Project Title: Evaluation of Barley for FHB Resistance in an Off-Season Nursery in China.

PROJECT 2 ABSTRACT
(1 Page Limit)

The ultimate goal of this project is to develop malting barley cultivars resistant to Fusarium head blight. Breeding materials from three 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 total entries are screened each year. Materials to be included in the 2003-04 nursery include lines for genetics studies being conducted by researchers at North Dakota State University (NDSU), the University of Minnesota (U of M), and the USDA-ARS Cereal Crops Research Unit Fargo; and elite breeding lines from all upper Midwest barley breeding programs and from the ICARDA/CIMMYT barley breeding program. 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. This project specifically addresses the research priorities of the Variety Development and Uniform Nurseries research program (i.e. rapid development of resistant barley varieties and research on the genetics of FHB resistance that will provide information so selection efficiencies can be improved.