

Project Abstract

Project Title:	Maintenance and Operation of FHB Screening Nurseries for Durum Wheat	
Principal Investigator:	Shaobin Zhong	North Dakota State University
Co-Investigator:	Steven S. Xu	USDA-ARS
Co-Investigator:	Elias Elias	North Dakota State University
Co-Investigator:	Xuehui Li	North Dakota State University
Co-Investigator:	Venkat R. Chapara	NDSU Langdon Research Extension Center

The overall goal of this project is to enhance and maintain the capacity and efficiency of FHB screening for durum wheat CP. The specific objective of the pre-proposal is to: 1) Maintain and operate the current Fargo nursery for FHB screening of durum materials from all PIs working in the durum CP, 2) Establish and operate the FHB nursery at the Langdon location for durum wheat. Durum wheat materials will be selected by durum wheat researchers (Dr. Shaobin Zhong, Dr. Steven Xu, Dr. Xiwen Cai, Dr. Xuehui Li, Dr. Elias Elias) who are working in the durum wheat CP each year and planted in the two nurseries located at Fargo and Langdon, ND. Point-inoculation will be conducted at anthesis for some wheat lines at the Fargo location and Fusarium-infested corn inoculum will be applied to the field at the boot stage of plant growth for both locations. Overhead misting system will be set up for both locations to keep enough moisture for disease development in the disease nurseries. FHB ratings will be conducted at 21 days after anthesis. These two coordinated FHB nurseries will be very useful for screening advanced breeding lines, introgression lines, and mapping populations, and facilitate the PIs of durum CP to fulfill their research goals and objectives.