

Project Abstract

Project Title:	Early generation screening for FHB resistance	
USWBSI Project ID:	FY24-HW-003	
Principal Investigator:	Suchismita Mondal	Montana State University

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Project Summary

The winter wheat breeding program at Montana State University is actively involved in breeding for Fusarium head blight (FHB) resistance. To identify breeding lines with FHB resistance and adaptation to Montana growing conditions, the breeding program is implementing early generation screening of breeding lines derived from crosses designed specifically for FHB resistance. Selection for disease resistance in early generations may be beneficial due to the larger number of lines being evaluated.

The specific objective of this project is to initiate screening for FHB resistance in early generations.

To accomplish these objectives a nursery consisting of advanced lines derived from crosses specific for FHB resistance will be planted at Southern Agricultural Research Center (SARC), Huntley. The advanced breeding lines are selected from headrows, which are also part of single replicated yield trial and observation nurseries planted across locations in Montana. This nursery will be inoculated for FHB disease incidence. Disease incidence and severity will be recorded and agronomic data such as days to heading and height will be measured.

This research will lead to the development of FHB resistant winter wheat varieties for Montana.

