

**U.S. Wheat and Barley Scab Initiative  
Annual Progress Report  
September 15, 1999**

**Cover Page**

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<b>Year:</b>	<b>FY1999</b>
<b>Grant Number:</b>	<b>59-0790-9-079</b>
<b>Grant Title:</b>	<b>Fusarium Head Blight Research</b>
<b>Amount Granted:</b>	<b>\$56,000.00</b>

**Project**

<b>Program Area</b>	<b>Objective</b>	<b>Requested Amount</b>
Variety Development	Accelerate development of resistant varieties.	\$70,000
	<b>Requested Total</b>	<b>\$70,000<sup>1</sup></b>

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Principle Investigator

Date

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<sup>1</sup> Note: The Requested Total and the Amount Granted are not equal.

**Project 1: Accelerate development of resistant varieties.**

1. What major problem or issue is being resolved and how are you resolving it?

Very little information is available on the scab resistance of currently grown hard winter wheat varieties. The first step in developing scab resistant hard winter wheat varieties is to assess the genetic variability for resistance in existing varieties and advanced breeding lines. These are screened in a mist-irrigated, inoculated nursery.

2. Please provide a comparison of the actual accomplishments with the objectives established.

The objective of the project is “to accelerate the development of scab resistant winter wheat varieties for South Dakota.” This objective is being met. Sources of resistance are being identified and populations for selection are being developed.

3. What were the reasons established objectives were not met? If applicable.

4. What were the most significant accomplishments this past year?

- The following nurseries were screened for scab resistance in 1999:
  - Southern Regional Performance Nursery
  - Northern Regional Performance Nursery
  - Winter Wheat Regional Scab Nursery
  - Eastern European yield trials
  - South Dakota Crop Performance Trials
  - SDSU Advanced Yield Trials
  - SDSU Preliminary Yield Trials
- Scab resistance sources included in the winter crossing block included adapted spring wheats from the SDSU breeding program, Sumai 3 derived spring wheat lines, eastern European winter wheat lines, entries from the 1998 regional winter wheat scab nursery, and adapted hard red and hard white breeding lines. Approximately 200 crosses with scab resistance sources were made and the segregating populations will be evaluated in 2000.

Year: 1999  
PI: Jackie Rudd  
Grant: 59-0790-9-079

Progress Report

Include below a list of the publications, presentations, peer-reviewed articles, and non-peer reviewed articles written about your work that resulted from all of the projects included in the grant. Please reference each item using an accepted journal format. If you need more space, continue the list on the next page.

None.