

**U.S. Wheat and Barley Scab Initiative
 FY00 Final Performance Report (approx. May 00 – April 01)
 July 30, 2001**

Cover Page

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Year:	FY2000 (approx. May 00 – April 01)
Grant Number:	59-0790-9-046
Grant Title:	Fusarium Head Blight Research
2000 ARS Award Amount:	\$17,561

Project

Program Area	Project Title	Requested Amount
Variety Development & Uniform Nurseries	Development of Scab Resistant Wheat Cultivars Adapted to the Southeastern U.S.	\$15,000.00
	Requested Total	\$15,000.00¹

Principal Investigator

Date

¹ Note: The Requested Total and the Award Amount are not equal.

Project 1: Development of Scab Resistant Wheat Cultivars Adapted to the Southeastern U.S.

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

The development of wheat varieties with scab resistance that are adapted to the Southeast is a major problem. Most sources of scab resistance are unadapted to the Southeast. These resistant sources to scab are usually susceptible to leaf rust, powdery mildew, glume blotch, or Hessian fly. Adapted varieties and elite lines adapted to the Southeast have been crossed with both domestic and foreign sources of wheat scab resistance. Foreign sources are also being evaluated for their disease and insect resistance before crossing.

Segregating populations from crosses of scab resistant germplasm with adapted cultivars and elite lines were evaluated in the field. Single and three-way crosses of new resistant sources to scab were made with adapted elite material to develop additional breeding populations. Advanced breeding lines were entered in the 2001 Southern Fusarium Nursery and 2001 Eastern Fusarium Nursery.

2. What were the most significant accomplishments?

An advanced breeding line (GA 92485E15) entered in the 2001 Southern Fusarium Nursery had a low level of scab infection in greenhouse evaluation. An Elite line was also identified in the field evaluation with a low level of infection and will be further evaluated. Several segregating populations with scab resistance are being generation advanced

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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.