

**U.S. Wheat and Barley Scab Initiative  
 FY01 Final Performance Report (approx. May 01 – April 02)  
 July 15, 2002**

**Cover Page**

<b>PI:</b>	<b>Olin Anderson</b>
<b>Institution:</b>	<b>USDA-ARS</b>
<b>Address:</b>	<b>800 Buchanan St. Albany, CA 94710</b>
<b>Email:</b>	<b>oandersn@pw.usda.gov</b>
<b>Phone:</b>	<b>510-559-5773</b>
<b>Fax:</b>	<b>510-559-5777</b>
<b>Year:</b>	<b>FY2001 (approx. May 01 – April 02)</b>
<b>Grant Number:</b>	<b>N/A</b>
<b>Grant Title:</b>	<b>Fusarium Head Blight Research</b>
<b>FY01 ARS Award Amount:</b>	<b>\$ 43,806</b>

**Project**

<b>Program Area</b>	<b>Project Title</b>	<b>Requested Amount</b>
HQ	Improving research results by increasing information hosted on the Initiative's website	\$ 20,000
Biotech	Genomics of Gibberella zeae, the head scab fungus	\$ 25,000
	<b>Total Amount Requested</b>	<b>\$ 45,000</b>

\_\_\_\_\_  
Principal Investigator

\_\_\_\_\_  
Date

**Project 1: Improving research results by increasing information hosted on the Initiative's website**

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

To make the most efficient use of Initiative resources, it is important for Initiative members to have access to current information regarding the Initiative. The Initiative's website ([www.scabusa.org](http://www.scabusa.org)) provides this information, including but not limited to research areas, news, annual forums, literature, and useful links. The site also includes a ColdFusion-based web-accessible database (the USWBSI database) which simplifies the process of querying and downloading the information.

The Initiative's web site is continuously update and maintained. The appearance, organization, and content of the site has improved significantly. In addition, the USWBSI database is being improved, expanded, and enhanced. This database will hopefully be expanded to include information on the Initiative's research efforts, such as methods, results, and publications.

2. What were the most significant accomplishments?

Installation and configuration of a new server-grade Linux-based computer system, housed in Albany, to serve the Initiative's web site.

Installation and configuration of ColdFusion and the USWBSI database. Improvements to the existing ColdFusion applications, as well as the development of additional applications is in progress.

General improvements in the appearance, organization, and content of the site.

Development of web applications to facilitate online forum registration and ordering of forum proceedings, including applications for administering the information.

**Project 2: Genomics of *Gibberella zeae*, the head scab fungus**

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

Head scab is a major disease of the wheat and barley crops and can have devastating effects during those growing seasons with moisture and temperature conducive to the causative fungus, *Gibberella zeae*. In order to gain basic insight into fungal gene activity and to provide molecular resources for research into aspects of fungal growth and mechanisms of infection, ESTs (expressed-sequence-tags) are an efficient tool. Each EST is a marker for a specific gene, and clone comprising the EST is a resource for further experimentation and forms a basis for many of the newest molecular biology/genomics technologies. Until the current project, there were no significant numbers of publically available ESTs for the fungus causing head scab. The single objective of this project was to provide such an EST resource.

2. What were the most significant accomplishments?

The project succeeded in producing approximately 2,300 ESTs of sufficient length to be classified as high quality ESTs. Additional, shorter, DNA sequences were also produced which may be useful in specific experiments.

FY01 (approx. May 01 – April 02)

PI: Anderson, Olin

Grant: N/A

FY01 Final Performance 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