U.S. Wheat and Barley Scab Initiative  
Annual Progress Report  
September 18, 2000  

Cover Page  

<table>
<thead>
<tr>
<th>PI</th>
<th>Martin A. Draper</th>
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<tbody>
<tr>
<td>Institution</td>
<td>South Dakota State University</td>
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| Address | Plant Science Dept.  
Box 2108 PSB1B  
Brookings, SD  57007-1019 |
| Email | Martin_Draper@sdstate.edu |
| Phone | 605-688-5157 |
| Fax | 605-688-4024 |
| Year | FY2000 |
| Grant Number | 59-0790-9-032 |
| Grant Title | Fusarium Head Blight Research |
| Amount Granted | $8,998.00 |

Project  

<table>
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<tr>
<th>Program Area</th>
<th>Objective</th>
<th>Requested Amount</th>
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<tr>
<td>Chemical &amp; Biological Control</td>
<td>Identify safe, effective fungicides for FHB through evaluation across of wheat and/or barley varieties grown in relevant environments.</td>
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Requested Total | $8,998.00 |

__________________________  
Principal Investigator  
Date
Project 1: Identify safe, effective fungicides for FHB through evaluation across of wheat and/or barley varieties grown in relevant environments.

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

Wheat producers in South Dakota and adjacent states have seen dramatic outbreaks of Fusarium head blight (FHB) in recent years. The 1999 epidemic in South Dakota produced FHB at the highest levels since 1996.

The problem is being addressed through examining new methods of managing Fusarium head blight through fungicide use. Fifteen treatments or treatment combinations were compared on two hard red spring wheat cultivars in three locations. The same fifteen treatments or treatment combinations were also applied to two hard red winter wheat cultivars.

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

Results are incomplete. Indications are that there may be differences among the fungicide products tested. Of the two South Dakota environments in the test, Groton had much less Fusarium head blight develop than South Shore. However, the disease appeared later than normal. No FHB was apparent at two weeks after anthesis. Winter wheat at South Shore, SD developed Fusarium head blight, but there was no data collected.

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

Data analysis is not yet complete. Yield and test weights were just completed (9/14/00). Data collection is still underway for vomitoxin (DON) levels, Fusarium damaged kernels (FDK), and protein. Winter wheat at South Shore, SD developed Fusarium head blight, but the trial was abandoned because there was extensive loss of canopy due to root rot and competition from cheatgrass species.

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

Demonstrations of the effectiveness of fungicide treatments in suppressing scab and providing a side benefit of suppressing leaf disease was very successful for growers that toured the plots.
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.


