

**Barley Coordinated Agricultural Project Work Plan for Year 4 (4/1/2009-3/30-2010)**  
**Ruth Dill-Macky, University of Minnesota**

**1) Describe the research, education, and outreach activities you are planning for Year 4 (4/1/2009-3/30-2010)**

Research

We will participate along with Kevin Smith in establishing misted and inoculated FHB nurseries in Saint Paul, MN as part of a collaborative FHB trial (384 entries). The input of our small grains pathology lab will include the production of the inoculum which will be produced in the spring (January-April). We will also assist with maintenance of the nursery including the set-up and operation of the mist-irrigation system and provide assistance in the spray application of inoculum to the plots over the summer field season.

We will also conduct a greenhouse screening of all 960 CAP lines for net blotch. We will plant 5-7 seeds per container (seed is provided by participating program) in the greenhouse. Seedlings at 14-17 days old will be inoculated with a characterized isolate of *Pyrenophora teres* and incubated for 24 h at 100% RH in a dew chamber to promote infection. Following the dew period inoculated plants will be returned to the greenhouse bench. Net blotch reactions will be assessed 7 days after inoculation. Data will be provided to Kevin Smith.

Education

No Education activities are planned

Outreach

No Outreach activities are planned

**2) List specific outcomes and deliverables that will be accomplished in the first 6 months. These will be used as benchmarks for your bi-annual progress report.**

- Complete production of *Fusarium* inoculum by April 30.
- Conduct FHB trial in St Paul plant between mid- April and early May, inoculate early July, conduct note taking in July and harvest by mid-August.

**3) List specific outcomes and deliverables will be accomplished in the second 6 months. These will be used as benchmarks for the bi-annual progress report.**

- Conduct greenhouse screening for net blotch – planting in early January.
- Send net blotch data to Kevin Smith by April.

**Barley Coordinated Agricultural Project Six-Month Progress Report**  
**(4/1/08 – 9/30/08)**  
**Ruth Dill-Macky, University of Minnesota**

**1) Describe the research, education, and outreach activities you completed (4/1/08 to 9/30/08)**

Research

We participated in a collaborative effort with Kevin Smith in establishing misted and inoculated nurseries for screening barley lines for their response to *Fusarium* head blight. The nurseries established in St Paul and Morris, MN evaluated 384 entries from the four Midwest breeding (UMN, NDSU-2row, NDSU-6row and BARI) programs plus the appropriate checks. The input of our small grains pathology lab involved the production and application of the inoculum which was produced in the spring (January-April).

We are awaiting seed to conduct a greenhouse screening of all 960 CAP lines for net blotch - this is scheduled for spring 2009

Education

There were no Education activities in this period

Outreach

There were no Outreach activities in this period

**2) List specific outcomes and deliverables accomplished (4/1/08 to 9/30/08)**

- *Fusarium* inoculum production completed by the end of April 2008 in preparation of field season.
- Collaborated in nurseries in St. Paul and Morris MN to evaluate lines for reaction to *Fusarium* – completed in August 2007.