Barley Coordinated Agricultural Project Work Plan FY06 (3/1/06 – 2/29/07)
Steven E. Ullrich, Washington State University

1) Describe the research, education, and outreach activities you are planning for the next year (3/1/06 – 2/29/07)

Research We will identify the WSU 96 CAP breeding lines for 2006 per the requirements outlined in the CAP Participants Guide. We will plant these lines plus the CAP common checks Robust, Harrington, and Baronesse in yield trials at Pullman, WA in 1.3 x 6.6 m plots with three replicates se. We will collect data on heading date, plant and stem heights, lodging, barley stripe rust rating, yield, plump grain, test weight, and grain protein concentration. We will send seed samples to Smith (1g) for DNA extraction, Blake (10g), and Cooper (10g) for uniform seed production.

I will also participate in the CAP collaborative food quality analysis project with Byung-Kee Baik at WSU. All data collected from the above trials will be sent to Jennifer Kling in spreadsheets designed in collaboration with Jennifer.

Education I will collaborate with the training of one graduate student with Byung-Kee Baik working on food quality traits.

2) List specific outcomes and deliverables that will be accomplished in the first 6 months (3/1 – 8/31). These will be used as benchmarks for your bi-annual progress report.

- Send breeders seed to collaborators (Smith, Blake, Cooper) by April 1
- Grow-out the 96 line plush checks CAP yield nurseries and collect field data.

3) List specific outcomes and deliverables that will be accomplished in the second 6 months (9/1 – 2/29). These will be used as benchmarks for the bi-annual progress report.

- Submit grain samples from CAP yield nurseries to USDA-CCRU for malting quality analysis after harvest.
- Collect after-harvest data form the CAP yield nurseries.
- Send CAP yield trial data to Jennifer King.
- Assist in starting the new graduate student Fall semester.

Barley Coordinated Agricultural Project Biannual Progress Report FY06 (4/1/06 – 9/30/06)

Steven E. Ullrich, Washington State University

Research: The 96 CAP breeding lines for 2006 from WSU were identified per the requirements outlined in the CAP Participants Guide. We drilled these lines plus the CAP common checks Robust, Harrington, and Baronesse in three 35 entry preliminary yield trials at Pullman, WA in 20 x 4 ft plots with three replicates. We were only able to plant at one location this year but we will plant at two locations in subsequent years. We collected data on heading date, height, lodging, yield, and test weight. Plump grain and protein concentration data will come from malting quality analysis of grain samples through the USDA CCRU and expected in the 2nd half of the FY. All trial entries were sent in two replicates to the CCRU for malting quality evaluation.

Education: A new PhD graduate student (Sindhu Nair) was recruited in collaboration with Byung-Kee Baik for a food quality genetics CAP related dissertation project. She will also work directly in the CAP breeding line food quality evaluation project under Dr. Baik's direction.