

**Barley Coordinated Agricultural Project Work Plan FY07 (4/1/07 – 3/31/08)**  
**David J Hole, Utah State University**

**1) Describe the research, education, and outreach activities you are planning for the next year (4/1/07 – 3/31/08)**

Research: We will identify the UT 96 CAP breeding lines for 2007 per the requirements outlined in the CAP Participants Guide. We will plant these lines in 2 reps in a preliminary yield trial at Logan, UT. We will collect data on heading date, height, lodging, yield, plump grain, test weight, and grain protein concentration. 2006 UT CAP entries will also be planted in a preliminary nursery since they were not planted in 2006. The same data will be collected.

All spring 2006 CAP entries will be planted in headrows to examine traits related to harvest index (above-ground dry matter, grain dry matter, number of fertile tillers, sink size per fertile tiller, 1000 kernel weight, number of seeds per spike)

All data collected from the above trials will be sent to Jennifer Kling in spreadsheets that are designed by Jennifer.

Education: I have one MS student that will be working to manage the Barley CAP lines in Logan as an addition to his MS research. He will be involved in the trials described above and will also supervise undergraduate researchers during the summer field season.

Outreach: I will present Utah's involvement in the Barley CAP program at field days during the summer of 2007 and to the Utah Crop Improvement Association seed school in February 2008.

**2) List specific outcomes and deliverables that will be accomplished in the first 6 months (4/1 – 9/30). These will be used as benchmarks for your bi-annual progress report.**

- Seed of UT 2007 CAP selections will be distributed as follows by April 01: 5 g to Steffenson; 1 g to Smith; 10 g to Cooper; 10 g to Blake.
- Utah CAP 2006 and 2007 entries will be planted in Utah yield nurseries.
- Agronomic yield data will be collected for Utah 2006 and 2007 CAP entries.
- All 2006 spring CAP entries will be planted in 2 reps of headrows.
- Harvest index traits will be measured on all spring 2006 CAP entries.
- Presentations at field days on CAP entries and project objectives.

**3) List specific outcomes and deliverables that will be accomplished in the second 6 months (10/1 – 3/31). These will be used as benchmarks for the bi-annual progress report.**

- Submit agronomic trials data to Jennifer King in October for both 2006 and 2007 UT entries.
- Submit harvest index trait data to Jennifer King in October for all spring 2006 CAP entries.
- Utah Crop Improvement Association seed school presentation on Barley CAP in February.
- The complete 2007 CAP 960 line nursery will be planted in Logan in the spring.

**Barley Coordinated Agricultural Project Biannual Progress Report**  
**FY06 (4/1/06 – 3/31/07)**  
**David Hole, Utah State University**

**1) Describe the research, education, and outreach activities you completed in the first half of the FY06 (4/1/06 – 9/30/06)**

Research : We identified the UT 96 CAP breeding lines for 2006 per the requirements outlined in the CAP Participants Guide. With the change in PIs in the Utah participation group, the lines were not planted in Utah. They will be planted in 2007 along with 2007 UT 96 CAP lines.

DNA source seed was harvested by Blake Cooper since 2006 entries had not been planted in Utah.

Education: One graduate student and two undergraduate students are now working on the project. One MS student, Justin Clawson, is responsible for overall nursery management. Justin is also helping to supervise undergraduate researchers. All students are involved in carrying out field trials and collecting data.

Outreach: I made a presentation to growers and industry representatives at the Bluecreek research farm field day jointly sponsored by Utah State Extension and the Utah Agricultural Experiment Station. The presentation introduced the audience to the Barely CAP program and Utah's benefit from participation in the program.

**2) List specific outcomes and deliverables accomplished in the first half of FY06 (4/1 – 9/30).**

- Arranged for collection of DNA source seed of 2006 UT 96 CAP entries.
- Have harvested seed of lines from which 2007 UT 96 CAP entries will be identified.