

Barley Coordinated Agricultural Project Work Plan FY06 (3/1/06 – 2/29/07)
David Hole, Utah 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 UM 96 CAP breeding lines for 2006 per the requirements outlined in the CAP Participants Guide. We will plant these lines in our preliminary yield trials at two locations (Logan and Mount Sterling, UT) in 2-row (3m long) plots with two replicates per location, including the CAP common checks Robust, Harrington, and Baronesse. We will collect data on heading date, height, lodging, yield, plump grain, test weight, and grain protein concentration.

All data collected from the above trials will be sent to Jennifer Kling in spreadsheets designed in collaboration with Jennifer.

Education We advertised nationwide a position for a Master's student scholarship. We intend to fill this position by mid-summer and have the graduate student involved in the planting of fall-planted barleys.

Outreach I introduced the Barley CAP project to members and seed growers of the Utah Crop Improvement Association on February 17 at Brigham City. Scientific relevance and potential impacts of the CAP project have been shared with administrators of the College of Agriculture and Utah State University in general.

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.

- Preliminary yield trials planted in April for all 96 CAP 2006 Utah entries,
- Production of breeders source seeds from one single head for all 96 CAP Utah entries,
- We will send 4-5 seeds of the above seeds to Kevin Smith (U. of Minnesota) in late August, in order for him to constitute a DNA source for all 960 CAP lines,
- After field evaluation of ongoing breeding program, we will select 96 CAP entries for 2007.

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.

- Send yield trials data to Jennifer King in October.
- Plant 150-250 CAP lines in September (winter barleys), all others will be planted in April 2007.
- Off season production of seeds of all 96 and 96 CAP Utah entries from single head harvested in August 2006.

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