

Barley Coordinated Agricultural Project Work Plan for Year 4 (4/1/2009-3/30-2010)
David Hole, Utah State University

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

Research

We will identify the UT 96 CAP breeding lines for 2009 per the requirements outlined in the CAP Participants Guide. We will plant these lines in 2 replications 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.

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

Education: Undergraduate and high school students will be involved in the trials described. Material from the CAP MAS workshop will be integrated in undergraduate and graduate Plant Breeding courses.

Outreach: I will present Utah's involvement in the Barley CAP program at field days during the summer of 2009 and to the Utah Crop Improvement Association seed school in February 2010.

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.

- Selected Utah CAP 2009 entries will be planted in Utah yield nurseries.
- Agronomic and yield data will be collected for Utah 2009 CAP entries.
- Presentations at field days on CAP entries and project objectives.

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.

- Agronomic and yield data on 2009 UT CAP entries will be reported.
- Utah Crop Improvement Association seed school presentation on Barley CAP in February 2009.

Barley Coordinated Agricultural Project Six-Month Progress Report
(4/1/08 – 9/30/08)
David Hole, Utah State University

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

Research

We identified the UT 97 CAP breeding lines for 2008 per the requirements outlined in the CAP Participants Guide. Yield data were obtained for 2008 CAP entries in Logan. Further analysis is ongoing.

All spring 2007 CAP entries were 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). Plant counts were taken and samples were harvested to determine above ground harvest index. Harvest index harvest and analysis is ongoing.

Education:

Two undergraduate students and one high school student are now working on the project. All students are involved in carrying out field trials and collecting data. I attended the CAP MAS workshop to develop ideas for incorporation into Plant Breeding courses.

Outreach:

I made a presentation to growers and industry representatives at the Logan 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 (4/1/08 to 9/30/08)

- Seed of UT 2008 CAP selections were distributed.
- Utah CAP 2008 entries were planted in Utah nurseries.
- Agronomic yield data was collected for Utah 2008 CAP entries.
- All 2007 spring CAP entries were planted in 2 reps of headrows.
- Harvest of 2007 CAP entries were for harvest index phenotypic determination is partially complete and ongoing.
- Presentation was made at the Logan field day on CAP entries and project objectives.