

Barley Coordinated Agricultural Project Work Plan FY06 (3/1/06 – 2/29/07)

Don Obert USDA-ARS

Small Grains and Potato Germplasm Facility

Aberdeen, ID

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 ARS 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 3 locations (Aberdeen, Filer, and Soda Springs, ID) for 2-rowed types and Aberdeen, Craigmont, and Filer, ID for 6-rowed types in 7-row plots (4.1m length) with three 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. We will clean and prepare the sample for quality analysis to be performed at the CCRU-Madison, WI lab.

We will send breeders source seed of our 96 CAP lines seed to Brian Steffenson (5 g), Blake Cooper (10g), Tom Blake (10 g) for evaluation of other 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 (Cooper, Steffenson, Blake) by April 1

Collect phenotypic data for all locations and yield data from Filer, ID for the 96 CAP lines.

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 seed for malt quality analysis to USDA-CCRU in September.

Send yield and other phenotypic trial data to Jennifer King in October.

Barley Coordinated Agricultural Project Biannual Progress Report
FY06 (4/1/06 – 9/30/06)
Don Obert, USDA-ARS, Aberdeen, ID

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 USDA 96 CAP breeding lines for 2006 per the requirements outlined in the CAP Participants Guide. We had 2 trials, a PYN-2 (two-rowed) and PYN-6 (six-rowed), each planted at 3 locations with 3 replications per location. Plot lengths were 3.5m with 7-rows. The 2-rowed trial was planted at Aberdeen, Potlatch, and Soda Springs, ID., and the 6-row trial was planted at Aberdeen, Filer, and Fenn, ID. The CAP common checks Robust, Harrington, and Baroness were used as checks in the respective trial. We collected data on heading date, height, lodging, stem length, and yield. Data for percentage plump kernels and test weight will be obtained around mid December. Grain protein concentration and all other malt measurements will come from malting quality analysis of grain samples through the USDA CCRU and expected in the 2nd half of the FY.

Outreach: I will present information regarding the CAP grant at the upcoming food barley summit to be held in Aberdeen, ID in early November. Spoke at various field days and gave tours of my CAP lines to industry and producers.

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

- Sent breeders seed to collaborators (Cooper, Steffenson, Blake) by April 1
- Collected breeder trait data from preliminary yield trials at trials in Idaho.