

Slender Wheatgrass (*Elymus trachycaulus*) and Mountain Brome (*Bromus carinatus*) Evaluation of Seed Collections for the Caribou-Targhee and Bridger-Teton National Forests Region 4

National Fire Plan – Restoration/Rehabilitation of Burned Areas EBLI (NFN3)

2007 Accomplishments

The purpose of this project is to evaluate wildland seed collections of two species of native perennial grasses used for revegetation. The intent is to conduct an evaluation of locally collected seed from sites throughout the two forests prior to increasing seed at a large-scale. The evaluation process is the same as would be done in the initial stages of developing a pre-variety or cultivar release.

During the summer of 2004, Forest employees collected 11 accessions of slender wheatgrass and 10 accessions of mountain brome. The site location and amount collected for each accession were documented. The seed collections were cleaned by the USDA-NRCS Aberdeen Plant Material Center (PMC) and planted for evaluation.

The initial evaluation trial is being conducted at the PMC Fish and Game farm located approximately 5 miles northeast of Aberdeen, Idaho. Experimental design was a randomized complete block with six replications of each accession. Each plot is 20 feet long and contains one row, and plots were planted on three foot centers. Experimental design also contains plots of known industry standards from each species for comparison.

Evaluation plots were established May 19th, 2005, the initial establishment evaluations were conducted on June 15th and September 16th, 2006.

Plots were evaluated for percent stand, plant density and seedling vigor during the initial establishment evaluation and at the second evaluation plots were evaluated for percent stand and plant width. More indicative biometric data, e.g. plant biomass, plant height and seed production, was done during the second growing season (2006).

In FY2007 the forest received a complete progress report for the plots from the Aberdeen PMC for the 2006 growing season (available per request). Also in 2007 the plots were maintained and harvested for seed yield and forage yield. The Aberdeen PMC is currently in the process of cleaning the seed samples and weighing the forage samples. A progress report for the 2007 season will be available in January or February 2008.



Clipping of mountain brome plots 2007



Aberdeen employee setting up for clipping 2007

Years Awarded: 2004 & 2006

Project Completion: 2008

Report number: 2004 portion 3 of 3; 2006 2 of 3

Expenditures:

No funding was available for this project in FY2005. All work done in 2005 & 2006 was under an agreement with the USDA-NRCS Aberdeen Plant Material Center with FY2004 obligated funds.

In FY2006 the project was funded to continue the evaluation for two more years. All FY06 funding (\$44,020) was expended (obligated under contract \$39,320 & project coordination \$4,500).

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