

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

National Fire Plan – Restoration/Rehabilitation of Burned Areas FBI.I (NFN3)

## 2005 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.

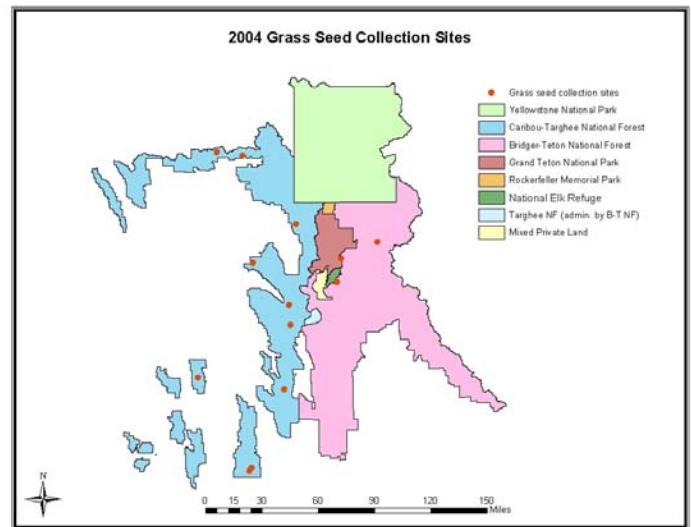
During the summer of 2004, Forest employees collected 11 accessions of slender wheatgrass and 10 accessions of mountain brome. The site location and amount collected for each accession were documented. The seed collections were cleaned by the USDA-NRCS Aberdeen Plant Material Center (PMC) and planted 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 19<sup>th</sup>, 2005, the initial establishment evaluation was conducted on June 15<sup>th</sup>, and the second evaluation was conducted on September 16<sup>th</sup>.

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, will be taken during the second growing season (2006).

A detailed progress report including results is available per request.



**Partners:** USDA-NRCS Aberdeen Plant Material Center.  
**Goal of the Project:** Ultimately, the end product would be to make available to the Forests a Selected-Class Release of genetically-local slender wheatgrass and mountain brome that has shown good traits for producing quality seed for most revegetation needs, including large-scale projects such as wildfires and phosphate mine rehabilitation. Additional funding will be needed to continue the evaluation for at least two more years to have Selected-Class Releases for each species. This would significantly promote production by private industry, utilizing the seed certification process already in place to provide foundation seed to commercial growers.  
**Expenditures:** No funding was available for this project in FY2005. All work done in 2005 was under an agreement with the USDA-NRCS Aberdeen Plant Material Center with FY2004 obligated funds.



Evaluation plots of accessions located at the Aberdeen Plant Material Center, Fish and Game farm

**Year Awarded:** 2004  
**Project Completion:** 2006  
**Interim Report Number:** 2 of 3  
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