GLACIER NATIONAL PARK
FY 2006 ANNUAL SUMMARY REPORT
prepared by

NATURAL RESOURCES CONSERVATION SERVICE
PLANT MATERIALS CENTER
BRIDGER, MONTANA

INTRODUCTION: The Bridger Plant Materials Center (BPMC) has maintained a cooperative agreement with Glacier National Park (GNP) since FY 1986. This agreement facilitates the collection, increase, and re-establishment of indigenous plant materials, and the development of technologies for the restoration of disturbances resulting from road construction and other projects within Park boundaries. Wildland seeds are collected by GNP staff, dried, and then mailed to the BPMC where they are cleaned, weighed, accessioned, inventoried, and stored until needed. Wildland and cultivated seed may be used by the BPMC or commercial growers for seed increase or plant production, or sent back to GNP for direct field seeding or plant production.

ACCOMPLISHMENTS: In 2006, 73 seed lots representing 52 individual species and totaling 13.61 pounds (6.17 kg) were delivered to GNP or used for BPMC production. The 2006 seed distribution included 12 grass lots (2 species), 47 forb lots (39 species), and 14 shrub lots (11 species). In addition, a total of 1,440 container plants representing 2 collections (2 species) were either planted at the BPMC for seed increase or delivered to GNP for restoration activities. No old seed lots were shipped to GNP in 2006 since nearly all GNP seed lots in storage are now 10 years or less in age.

In 2006, 113 wildland collections were sent to the BPMC and cleaned: 18 collections of grasses, sedges, and rushes (15 species); 58 forb collections (38 species); and 37 shrub and tree collections (24 species). A total of 11.01 lbs. (4.99 kg) of clean seed were processed; 4.16 lbs. (1.89 kg) of grass and grass-like, 2.37 lbs. (1.07 kg) of forbs, and 4.47 lbs. (2.03 kg) of trees and shrubs. A total of 36 new species:collection sites were identified and accessioned representing 2 grass or grass-like (2 species), 20 forb (20 species), and 14 woody plant (13 species) lots.

Eleven established seed production fields produced seed in 2006, including *Achillea millefolium* (9063640-Cut Bank); *Achnatherum nelsonii* (9081995-SM/Two Dog Flats); *Carex athrostachya* (9078591-LM/Camas); *Carex athrostachya* (9081443-LM/Avalanche); *Carex pachystachya* (9078645-LM/Avalanche); *Eurybia conspicua* (9087433-Lake McDonald); *Festuca idahoensis* (9075848-Saint Mary); *Pseudoroegneria spicata* (9081993-SM/Two Dog Flats); *Pseudoroegneria spicata* (9076127-Two Medicine); and a combined field of two lots of *Symphyotrichum laeve* (*Aster laevis)* (9081447-Avalanche). The declining *Phleum alpinum* (9054559-Logan Pass) field also produced seed in 2006 but was removed after harvest. Seed production fields produced a total of 59.71 lbs (27.08 kg) of seed in 2006. In addition, 440 supplemental 2-0 seedlings were planted in the *Pseudoroegneria spicata* (9081993-SM/Two Dog Flats) field and 1,000 *Geum macrophyllum* (9087654-Lake McDonald) 1-0 seedlings used to establish a new seed production field of this species. The *Geum macrophyllum* field also produced a small amount of seed in 2006.

Seed germination tests are currently being conducted on seven accessions (six species) grown at the BPMC in 2006 including *Achillea millefolium* (9063640-Cut Bank), *Achnatherum nelsonii* (9081995-Saint Mary), *Carex athrostachya* (9078591-Lake McDonald), *Carex pachystachya* (9078645-Avalanche), *Carex athrostachya* (9081443-Avalanche), *Festuca idahoensis* (9075848-Saint Mary), and *Symphyotrichum laeve* (*Aster laevis)* (9081447-Avalanche). Results will be presented in the Glacier National Park 2006 Annual Technical Report.

Twenty-one *Mahonia repens* (9054489-LM/Apgar) remain in cold storage as of January 1, 2007.

TECHNOLOGY DEVELOPMENT: Preliminary germination trials were established for production of beargrass *Xerophyllum tenax* and plant samples sent to Montana State University for analysis in late 2006. A presentation titled, “Effects of Erosion Control Blanket on the Germination of Six Native Species” was given on June 8, 2006 at the 2006 Billings Land Reclamation Symposium in Billings, Montana, and the abstract published in the symposium proceedings. A training workshop titled “Native Plant Propagation and Nursery Management Workshop: From Project Planning to Monitoring” was sponsored by NRCS, the National Park Service, and the Soil and Water Conservation Districts of Montana, Inc., and held at the BPMC from June 12-15, 2006.