



YELLOWSTONE NATIONAL PARK
2000 Summary Report
prepared by
Natural Resources Conservation Service
Bridger Montana Plant Materials Center

INTRODUCTION: The Bridger PMC has maintained a cooperative agreement with Yellowstone National Park (YNP) since FY 1986. This agreement facilitates the collection, increase, and reestablishment of indigenous plant material for restoration of disturbances resulting from road construction projects within Park boundaries.

In 2000, 132 lots of seed were delivered to YNP or the PMC totaling 174.16 pounds (79 kg). This included 68 grass lots (25 species), 55 forb lots (28 species), and 9 shrub lots (7 species). Distribution to the PMC for planting seed increase included 11 grass lots (6 species) and 2 forb lots (2 species), and 1 shrub lot.

ACCOMPLISHMENTS: Yellowstone National Park has identified future road projects allowing collection and production efforts to begin at least 3 years in advance of each project.

Collections are made by Yellowstone National Park crews, dried, and either delivered to the Bridger PMC, or picked up by PMC personnel. In 2000, 155 collections were made: 77 grasses (22 species) at 77.765 pounds (35.274 kg); 75 forbs (32 species) at 16.46 pounds (7.466 kg); and 3 shrubs species at 2.282 pounds (1.035 kg) resulting in a total of 96.506 pounds (43.775 kg) of clean seed.

Records are maintained by the PMC of person-hours to collect each seed lot, from which the approximate cost of collecting native seed can be estimated. In 2000, more than 407 hours were spent by YNP personnel in the activity of seed collection. There were approximately 191 hours (average 2.48 hours per recorded collection) dedicated to collecting grass seed, 172 hours (average 2.29 hours per recorded collection) for forbs, and 44.5 hours (40 hours for one of the three recorded collections) for woody species.

There were eight additional grass increase blocks established for road projects. Currently there are 17 accessions of 11 grass species (3.54 acres/1.43 hectares) planted in seed increase blocks at the Bridger PMC.

During the past growing season, 14 different accessions (11 species) were harvested, producing 398.91 pounds (180.944 kilograms) of clean seed. Seed production averaged 147.74 pounds-per-acre (165.62 kg-per-hectare).

Seed germination tests are being conducted on PMC seed increase production for 12 grass accessions. Percentage germination is expected within normal range for the 8 grass species. Final results will be in the 2000 Annual Technical Report.

The wildland collection and seed increase inventory contains 535 accessions (137 species) totaling 1,443.17 pounds (654.62 kg). This is comprised of 267 grass accessions (36 species) at 1,378.41 pounds (625.25 kg), 253 forb accessions (88 species) at 61.77 pounds (28.02 kg), and 15 shrub accessions (13 species) weighing 2.99 pounds (1.35 kg).

TECHNOLOGY DEVELOPMENT: All plant material collections are assigned accession numbers and inventoried in a database. The lot identification numbers have been upgraded to include identification by individual construction projects. A growth chamber is now in operation allowing seed germination testing of all PMC-produced material.