



Section 10

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Section X: Facilities and Equipment Development

Project Locations: Utah

Principal Investigators/Cooperators: Stephen B. Monsen, Ecologist,
1097 North Main, Mapleton, UT, 84664
Tel: 801-489-5059;
Email: [sbmonsens@comcast.net](mailto:sbmonsen@comcast.net)

UP Project
P.O. Box 2014, Montrose, CO 81402
Email: UPProject@UPProject.org

Kelly Memmott, Ecologist
935 North 100 East, Pleasant Grove, UT 84062
Tel: 801-785-2567
Email: klmemmott@yahoo.com

A. Fountain Green

In 2006, with cooperation of the Utah Division of Wildlife Resources, a storage building was erected at the Fountain Green, UT site. The building provides enough room to store a wheel tractor and all field tillage, planting equipment, and irrigation supplies (Fig. 32). A combination workroom and tool and chemical storage room has also been added to lock and store smaller items. Eighteen 2 inch x 40 foot irrigation pipes with necessary joints and valves were also acquired for the Fountain Green study site. The additional irrigation lines now provide a complete irrigation system capable of irrigating 5-10 acres. In addition, a drip irrigation system was expanded to conduct different irrigation studies that now include approximately 20 herbaceous species. The system is designed to regulate the amount of water applied and includes a series of inline filters to prevent clogging and irregular distribution of water. The project also acquired a row multivator, a walk behind rear tined tiller, and a tractor drawn tine-type tiller for weeding and cultivating. The row multivator is a very useful tool used to fallow between the rows of seed increase fields and studies sites in Colorado and Utah. These new implements are stored at the Fountain Green facility along with the chemical spray rig, transplanter, and other weeding attachments. This has proven to be a good central site to store and haul equipment and materials to other locations of work.



Figure 32: Storage Building and Equipment at Fountain Green, UT

The project continues to cooperate closely with the UDWR Great Basin Research Station with the maintenance of numerous seed increase and seed production fields, seed harvesting, and seed cleaning studies and operations. All seeds collected and produced by the UP Project are cleaned using machinery and laboratory facilities owned by Utah DWR. Seeds are also stored at DWR facilities at Ephraim, UT (Fig. 33). Utah DWR personnel participated by using their field harvesting equipment in the collection of seeds of a number of species grown in seed increase studies. Studies were conducted to evaluate the effectiveness of a real-type harvester to collect seed of Sandburg bluegrass and *Wyeth eriogonum*. Cooperative studies were also conducted with personnel from the Rocky Mountain Research Station, Provo, UT to evaluate the usefulness and capabilities of a Hege 1000 precision drill to seed small and trashy seeds under nursery or field conditions. Six different species were selectively planted with this equipment to establish a number of seed increase fields at two locations.



Figure 33: Seed Storage at the Great Basin Research Station

In 2006, the following study sites and seed increase fields were established at project managed locations or with cooperators.

B. Snow College Farm

This facility consists of 2.5 acres of seed increase fields with sprinkler irrigation system provided by cooperation with DWR (Fig 34).



Figure 34: Snow College Farm

C. Nephi Farm

This facility consists of a one acre site was established to conduct site adaptability trials. The area is managed through cooperation with Utah State University Extension Program, Logan, UT (Fig. 35). An additional 10 acres have been committed for

expanded studies, as necessary. An equipment storage shed is also available for project use at this location.



Figure 35: Nephi Farm

D. Sims Mesa and Transfer Road Sites

Two field testing sites in Colorado - Sims Mesa and Transfer Road - were cleared, fenced, and used to establish a series of grass studies (Fig. 36). Each site consists of about 6 acres.



Figure 36: Sims Mesa Enclosure on the Uncompahgre Plateau

E. Dove Creek

A large area was made available for a series of research studies and seed increase plantings near Dove Creek, Colorado. The property is owned by CDOW and consists of approximately 250 acres of dry farm land that has previously been farmed and maintained free of serious weeds (Fig. 37). The site was used to plant a series of site adaptability studies and establish approximately 6 acres of antelope bitterbrush as a seed increase field.



Figure 37: Dove Creek Facility

F. Billy Creek

The Colorado DOW maintains irrigated fields near Colona, CO (Fig. 38). The program currently has cliffrose and wyoming big sagebrush planted in the fields. Weeds have been problematic at this site and the program intends to treat the area this spring.



Figure 38: Billy Creek Facility

G. The Nature Conservancy Fields

A lease agreement was completed with the Nature Conservancy to begin use of a tract of land in Montrose County, CO, referred to as the Lower San Miguel Property. The land is owned by The Nature Conservancy and managed to restore the ecological value of the site (Fig. 39). The land will be used to establish and maintain a seed increase field of fourwing saltbush. The tract provides an area of 35 acres that can be cultivated and irrigated to sustain seed production of a local ecotypes of fourwing saltbush. The lease agreement extends from 2007 to 2011, with a 5-year renewal option. The farm is equipped with an irrigation pump and irrigation lines to adequately irrigate the site as necessary.



Figure 39: The Nature Conservancy Fields

H. Rogers Mesa

Cooperative studies with Colorado State University at Rogers Mesa have continued and were expanded in 2006 (Fig. 40). Studies have primarily dealt with examining cultural methods to grow and produce seeds from a number of species. The center is currently growing species that were established in 2004, 2005, and 2006. Most fields are now reaching maturity, and irrigation systems and maintenance facilities are in place to sustain the study fields.



Figure 40: Rogers Mesa Facility

