

Plant Species in the High and Dry Research Garden
San Miguel Basin CSU Extension
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The High and Dry Demonstration Garden is an ongoing study designed to test plant species for their ability to do well at high elevations with little or no supplemental water. Twenty species of native shrubs and perennials are being tested in this garden for their ability to survive on natural rainfall alone.

There are currently five High and Dry gardens in Colorado, one in Gilpin County and one in El Paso county, both planted in the summer of 2004, and one in Custer County and one in Boulder County, both planted in the summer of 2005. This garden at the CSU Extension office in San Miguel county was planted the summer of 2006 and is the first replication of the study on the western slope.

High and Dry gardens were conceived and planted in response to resilient drought in Colorado, to municipal watering restrictions and the Colorado Water Law that states that most private wells drilled on or after May 8, 1972 on properties less than 35 acres are permitted for exempt household use only. This means that outdoor watering of landscapes and livestock is not permitted with these wells.

This garden was planted on August 4, 2006 with the help of 5 people. A group of kids from Prime Time came and helped for a while.

During and after planting the plants were given a deep watering. A heavy rain came at the end of the day. On the morning of August 5 all the plants were checked for proper planting and adjusted if necessary. They were watered a minimal time. Since then there has not been nor will there be any supplemental water applied to the garden- just natural rainfall. The idea is to plant them before the monsoon so they get a natural start and the extended monsoon of 2006 hopefully did just that.

We chose to include species if they were repeated in at least two other High and Dry Gardens so that we would have accurate replication.

Plants were arranged in a naturalistic design randomly according to height and section of the garden.

Little bluestem *Schizachyrium scoparium*

- Size: 1-4' erect
- Natural Habitat: prairies, dry hills, open woods, rock crevices, waterways from 3,500-7,500'
- Hardiness: -38°
- Drought resistance: medium to high
- Culture: warm season grass; fine to coarse well-drained, pH 5-8.4, tolerates low fertility, calcareous soils; sun
- Landscape Use: upright with wonderful fall color and winter interest

Indian ricegrass *Achnatherum hymenoides*

- 'Size: 1-2.5' tall, dense, erect
- Natural Habitat: deserts, prairies, plains, foothills from 2,500-9,000'
- Hardiness: to -38°
- Drought resistance: high
- Culture: medium to coarse deep, pH 6.6-8.6, low fertility; will not tolerate shade.
- Landscape Use: 'see through' effects with flowers planted behind

Nodding onion *Allium cernuum*

- Size: 1-1.5'
- Natural Habitat: Ledges, gravels, rocky or wooded slopes and crests ascending to high altitudes. Widely distributed on moist soils in mountainous and cool regions to 10,500'.
- Hardiness Zone: 4-8
- Drought resistance: medium to high
- Culture: dry to medium wet soil; full sun to part shade; dies back in late summer
- Landscape Use: Rock gardens, border fronts, cottage gardens or naturalized areas; attracts butterflies; summer bloom

Small-leaf pussytoes *Antennaria parvifolia*

- Size: 6" tall, mat-forming
- Natural Habitat: common in open montane forests
- Hardiness Zone: 2
- Drought resistance: high
- Culture: moist to dry, coarse, well-drained soil; full sun to part shade.
- Landscape Use: ground cover, rock garden, wildlife. Flowers in spring.

Bluebell bellflower *Campanula rotundifolia*

- Size: 4-20", spreading
- Natural Habitat: canyons, rocky slopes, crevices, sandy shores at 7,500-11,500'
- Hardiness Zone: cold-hardy but not necessarily heat resistant
- Drought resistance: medium
- Culture: moist to dry; sun to light shade
- Landscape Use: rock gardens, meadows, perennial borders

Aspen fleabane, showy daisy *Erigeron speciosus*

- Size: .5 to 3.5' spreading
- Natural Habitat: many, 6,000-11,000'
- Hardiness Zone: 3
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- Drought resistance: high
- Culture: dry soil; full sun
- Landscape Uses: perennial borders, mixed plantings

Rocky Mountain penstemon *Penstemon strictus*

- Size: 12-36" erect with several stems
- Natural Habitat: grasslands to open woodlands from 6,500-10,500'
- Hardiness: 4-9
- Drought resistance: high
- Culture: coarse, moderately fertile, pH 6-8; sun
- Landscape Uses: borders, rock gardens. Easy to grow. Resists rabbits and deer.

Bluemist penstemon *Penstemon virens*

- Size: 8" x 8-10"
- Natural Habitat: ponderosa forests and foothills above 7000'
- Hardiness: 4-8
- Drought resistance: medium high to high
- Culture: Jean, well-drained soil in sun or afternoon shade
- Landscape Uses: rock gardens, borders; resists rabbits