

# Protocol Information

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Family Scientific Name: **Fabaceae**

Family Common Name: **Legume Family**

Scientific Name: *Dalea searlsiae* (A. Gray) Barneby

Common Name: **Searls' Prairie Clover**

Species Code: **DASE3**

Ecotype: **Eastern Nevada and Southern Utah**

General Distribution: **Portions of the Great Basin, Colorado Plateau, and northern Mojave Desert in the states of Arizona, California, Nevada and Utah at elevations ranging from 3,000-7,500 feet above sea level.**

Propagation Goal: **Seeds**

Propagation Method: **Seed**

Product Type: **Propagules (seeds, cuttings, poles, etc.)**

Time To Grow: **2 Years**

Target Specifications: **Field produced seed with >95% purity.**

Propagule Collection: **Wildland seed is easily hand collected. The pods disarticulate readily from the stems, and very clean, small collections can be made by shaking ripened inflorescences over a bag or tarp.**

Propagule Processing: **The pods are hammer milled with a 0.25" screen. The seed is then cleaned with an air screen cleaner with 2.75 mm top and 1.55 mm bottom screens to remove inert matter. The air is set at 4 (relatively high) to remove unfilled or insect-damaged seed. Additional cleaning can be done with an indent cleaner with #2 drum to remove weeds of similar size and weight such as pigweed.**

Pre-Planting Treatments: **Seed must be scarified prior to planting to improve germination. As with many native legumes, Searls' prairie clover has a high percentage of hard seed (as high as 90 % or greater in one year old seed). Studies at the USDA-ARS Forage and Range Research Laboratory indicated that germination may be increased to more than 90 % when seed is scarified using a five-minute treatment in 98 % concentrated sulfuric acid. Germination was also improved when seeds were scarified with sand paper. Additional studies are underway to examine seed treatments and seeding methods to improve germination and seedling establishment in Searls' prairie**

**clover. Rhizobial strains that inoculate other perennial Dalea species (D. purpurea and D. candida) may be effective at nodulating D. searlsiae, but has not been evaluated.**

Growing Area Preparation/

Annual Practices for Perennial Crops: **There is little known about direct seeding Searls' prairie clover. The USDA-NRCS Aberdeen, Idaho Plant Materials Center has direct-seeded this species into weed barrier fabric as a dormant planting. Seed was surface-planted by hand and pressed into the soil surface and allowed to naturally stratify over winter. No plants germinated from this seeding. Successful stands have been achieved using greenhouse grown transplants.**

Establishment Phase: **The plants will rarely produce flowers in the first growing season.**

Length of Establishment Phase: **1 yr**

Active Growth Phase: **Good weed control can be achieved through the use of weed barrier fabric and hand roguing.**

Length of Active Growth Phase: **2 yrs**

Harvesting, Storage and Shipping: **Seed can be harvested in production fields via a vacuum type harvester or flail vac. Seed is cleaned using an air screen cleaner. Purities approximating 100% are achievable with minimal effort. There are approximately 132,000 seeds/lb.**

References: **St. John, L, D. Tilley, D. Ogle, D. Johnson, S. Bushman. 2011. Plant guide for Searls' prairie clover (Dalea searlsiae). USDA-Natural Resources Conservation Service, Plant Materials Center, Aberdeen, Idaho and USDA-Agricultural Research Service, Forage and Range Research Laboratory, Logan, Utah.**

**Citation:**

St. John, Loren; Tilley, Derek.; Ogle, Dan.; Johnson, Doug.; Bushman, Shawn. 2012. Propagation protocol for production of *Dalea searlsiae* (A. Gray) Barneby seeds; USDA NRCS - Aberdeen Plant Materials Center, Aberdeen, Idaho. In: Native Plant Network. URL: <http://www.nativeplantnetwork.org> (accessed 4 April 2012). Moscow (ID): University of Idaho, College of Natural Resources, Forest Research Nursery.