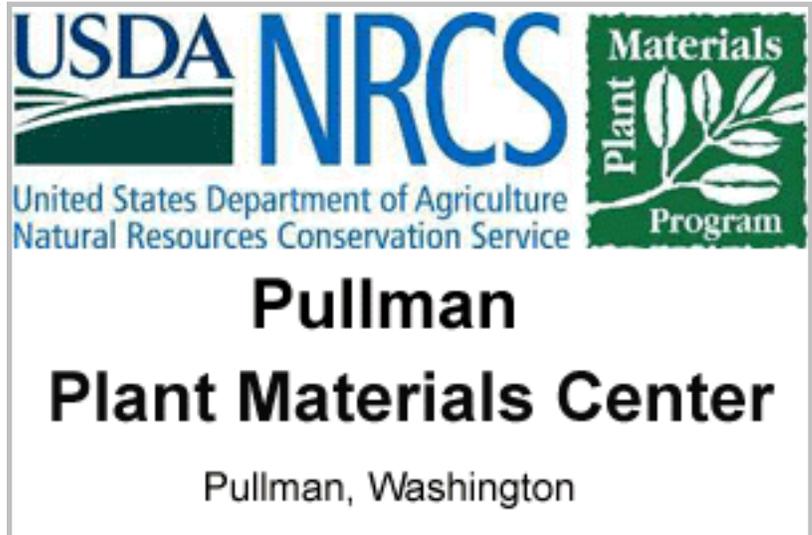


# Protocol Information

Dave Skinner  
PMC Farm Manager  
Pullman Plant Materials  
Center  
Room 211A Hulbert Hall  
WSU  
Pullman,  
Washington 99163-6211

509-335-9689  
509-335-2940 Fax  
[abbie@wsu.edu](mailto:abbie@wsu.edu)



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Family Scientific Name: **Onagraceae**

Family Common Name: **Evening Primrose**

Scientific Name: ***Clarkia pulchella* Pursh**

Common Name: **Elkhorn clarkia, Ragged robin**

Species Code: **CLPU**

Ecotype: **Paradise Creek drainage,  
Pullman, WA.**

General Distribution: **Northwestern US east to South  
Dakota. Usually found on south  
slopes in dry, open grassland  
and open Ponderosa pine  
forest.**

Propagation Goal: **Plants**

Propagation Method: **Seed**

Product Type: **Container (plug)**

Time To Grow: **3 Months**

Target Specifications: **Tight root plug in container**

Propagule Collection: **Wild seeds are collected when the caspules begin to split. Plants in seed increase plantings are cut and dried in paper bags at room temperature. The plant flowers and matures seed indeterminately, thus a judgement must be made as to when to cut the plants to maximize seed production. Seeds are small and dark brown in color. We determined 2,090,323 seeds/lb for this ecotype.**

Propagule Processing: **For small amounts, capsules are crushed and seed separated with a hand screen. Fine material is removed with an air column separator. Larger volumes are threshed with a hammermill and cleaned with air screen equipment. Seed is stored at 40 degrees Fahrenheit and 40% relative humidity after cleaning.**

Pre-Planting Treatments: **None required. There may be an after-ripening requirement. Seed lots have been observed to germinate at higher rates after storage in cold, dry conditions.**

**30 days cold, moist stratification did not enhance germination in trials conducted at the PMC.**

Growing Area Preparation/  
Annual Practices for Perennial Crops:

**In February, seeds are sown in 10 cu. in. Ray Leach Super cell conetainers filled with Sunshine #4. Seeds are covered lightly with media. A thin layer of pea gravel is applied to prevent seeds and media from floating. Conetainers are watered deeply. Using planting soils with slower drainage has been observed to increase diseases of this species in the Plant Materials Center greenhouse.**

**Establishment Phase: Medium is kept moist until germination occurs. Germination usually occurs in 5-7 days and is complete in 10-12 days.**

**Length of Establishment Phase: 2 weeks**

**Active Growth Phase: Plants are watered deeply every other day and fertilized once per week with a water soluble, complete fertilizer containing micronutrients.**

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

**Hardening Phase: Plants are moved to the cold frame in late March or early April, depending on weather conditions. Exposure to direct sunlight and cool temperatures is increased over a period of two weeks. Plants may begin flowering by this time.**

**Length of Hardening Phase: 2-4 weeks**

Outplanting performance on typical sites: **Transplanting is done using an electric drill and portable generator to auger 1.5 inch planting holes. Plants set out in seed increase plantings without competing vegetation will typically reach 90% or higher survival rates and grow vigorously. Plants set out in competing vegetation will achieve equally high survival rates but be much less vigorous.**

Other Comments: **This is an annual species. It reseeds itself well if there are openings in the vegetative cover where it can become established. Preliminary results from direct seeding trials in the field suggest that seed sown in the fall establishes at a high rate. Seed field sown in the spring failed to germinate.**

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**Citation:**

Skinner, David M. 2004. Propagation protocol for production of container *Clarkia pulchella* Pursh plants; Pullman Plant Materials Center, Pullman, Washington. In: Native Plant Network. URL: <http://www.nativeplantnetwork.org> (accessed 8 February 2007). Moscow (ID): University of Idaho, College of Natural Resources, Forest Research Nursery.