

We are unable to supply this entire article because the publisher requires payment of a copyright fee. You may be able to obtain a copy from your local library, or from various commercial document delivery services.

From Forest Nursery Notes, Summer 2011

20. © Improved germination of two *Sphaeralcea* A. St.-Hil. (Malvaceae) species with scarification plus stratification treatments. Dunn, B. Native Plants Journal 12(1):13-16. 2011.



Figure 1. Scarlet globemallow (A) and desert globemallow (B) blooming in summer.

IMPROVED GERMINATION OF TWO

Sphaeralcea A. St.-Hil. (Malvaceae) species

WITH SCARIFICATION PLUS
STRATIFICATION TREATMENTS

Bruce Dunn

ABSTRACT

Mechanical scarification plus stratification was most effective in improving germination of *Sphaeralcea ambigua* A. Gray and *Sphaeralcea coccinea* (Nutt.) Rydb. (Malvaceae) in my experiment that compared 4 seed treatments. The pattern of species response to treatments was similar. The control treatment (seeds left at room temperature in original packing envelopes) and the 30-d stratification at 4 °C (39 °F) treatment both yielded low germination (average 12%). Mechanical scarification alone improved germination (average 44%); while the combination of mechanical scarification plus 30-d stratification resulted in an average 65% germination (45% and 85% germination for *S. ambigua* and *S. coccinea*, respectively). Although impermeability of the seedcoat is the main factor preventing germination, embryos also appear to be partially or conditionally dormant. These treatments may have potential for other *Sphaeralcea* species.

Dunn B. 2011. Improved germination of two *Sphaeralcea* A. St.-Hil. (Malvaceae) species with scarification plus stratification treatments. *Native Plants Journal* 12(1):13–16.

KEY WORDS

dormancy, globemallow, seed propagation, Malvaceae

NOMENCLATURE

USDA NRCS (2009)

Photos by Bruce Dunn