# How to Germinate Ceanothus Tomentosus

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Ceanothus tomentosus, the Ramona Lilac or Woolyleaf Ceanothus, is a common shrub in the coastal half of San Diego County. In a typical February or March, if you look south from Pomerado Road in east Scripps Ranch, you will see blooming Ceanothus painting the hillside a vibrant blue. That is when you want to get close to these plants because their fragrance is amazing!

*How to germinate Ceanothus tomentosus*

Ceanothus tomentosus requires hydration followed by cool stratification for germination. Hot water treatment easily hydrates the seeds, but they require stratification at temperatures cooler than room temperature.

1) Hydrate Ceanothus by following Connie Beck's [1] recipe for hot water treatment. Place seeds in a styrofoam coffee cup, then fill it with water heated to 180°F. Let the water stand overnight, then remove the seeds for stratification. Hydrated seeds are obviously larger (Fig. 1). Some seeds swell immediately as a result of the hot water treatment, and most of the others hydrate within a few days while they stratify.

2) Seeds stratified at 55°F germinate in 2-3 weeks. I transplant seeds to pots when radicles appear (Fig. 2). More than half the seeds should germinate.

I stratify seeds by placing them on top of a moist potting soil (including about 20% native clay topsoil) and by keeping them at a controlled temperature. I put the potting soil and seeds in 2" plastic food storage containers I get from the 99 Cent Store.

*Hydration and germination*

Hydration is the first step to germinating these seeds, but their hydrophobic coats naturally resist hydration. I have soaked seeds at room temperature for more than a month without hydrating any seeds. On the other hand, they will hydrate, albeit slowly, by soaking them at 100°F. At this temperature, the seeds hydrate one or two at a time over many weeks. Seeds hydrated this way germinate much the same as seeds treated with hot water. Hot water is easier.

Emory [2] suggests hot water treatment, and DeHart [3] recommends cold stratification. While hot water treatment hydrates the seeds, it must be followed by cool stratification to achieve germination. I have not tried stratifying Ceanothus seeds at less than 55°F, but my experience is that seeds stratified at the refrigerator temperatures recommended by DeHart would take a long time to germinate.

The stratification temperature is critical. Seeds germinate well at 55°F, but not at all at room temperature. After a while, pathogens take over and the seeds rot.

It might be reasonable to hot water treat a batch of seeds, then sow them outside in late winter or early spring (when 55°F temperatures are common). The treatment should produce greater germination rates and more uniform germination times.

Stratifying seeds directly without hydrating them produces sporadic germination of a few percent of the seeds over 3-10 weeks. Anecdotally, seeds that germinate this way were often covered by brightly colored fungi. Perhaps soil fungi help water get in to hydrate seeds in native soil.

It will be interesting to see how well this method works for other species of Ceanothus. Connie thinks it should work fine. We will see.

*Figure 1. Ceanothus tomentosus seeds on the right are roughly 1.5 mm in diameter and 2.2 mm long. Hydrated seeds on the left are about 25% larger and double the weight.*

*Figure 2. A Ceanothus tomentosus seed with an emerging radicle. This seed is ready to plant.*

*References*

[1] Connie Beck is a past chair of the CNPS San Diego's Propagation Committee, and is widely acknowledged as a top expert on how to propagate plants from seed.

[2] Dara E. Emory, *Seed Propagation of Native California Plants*, Santa Barbara Botanic Garden, 1988.

[3] De Hart, "*Propagation Secrets for California Native Plants*", CNPS San Diego, 2004.