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Propagation of *Trichostema lanatum*[®]

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INTRODUCTION

Trichostema lanatum, commonly known as woolly blue curls in the Lamiaceae family, is a woody evergreen shrub native to California. It is found in the chaparral on dry slopes along the coast from San Benito and Monterey counties south to San Diego County and inland as far as Mint Canyon and the Santa Ana Mountains. It's an erect aromatic shrub that is highly prized as an ornamental and valued for its drought tolerance. Research shows most propagation is vegetative taken from recently matured shoots. I have observed over many years that the plants produce a large quantity of seed so why are so few plants being sexually reproduced?

There are certain flower color selections that should be preserved by cloning, but seed propagation is potentially the most economic way to increase production. Research shows that 2 months stratification (Hildreth and Johnson, 1976) or 3 months stratification at 32 °F using old, stored seeds (Mirov, 1945) can be beneficial, but overall seed propagation is difficult. Emery (1988) states that it is easily propagated from stem cuttings. Research has shown that many chaparral plants' germination is improved with smoke (Keeley and Fotheringham, 1998).

METHODS AND MATERIALS

Seeds were collected from nursery-grown, in-ground plants. The dry nutlets were removed and cleaned. Seeds were sown with no treatment in an open flat with our standard germination medium [vermiculite, sifted peat, perlite (1 : 1 : 1, by vol.)] with 70 °F bottom heat in the greenhouse. I prepared three baggies with 1/3 cup vermiculite, water to moisten, and seed. I prepared the ponderosa pine needles by lining a wooden flat with aluminum foil adding the needles and igniting them with a match. One-third cup of cooled charate was added to one of the baggies which was then moistened. After stratification seeds were sown in an open flat with germination mix and put in the greenhouse on bottom heat set at 70 °F. Germination occurred after 2 weeks in all stratified seeds and nontreated seeds. The seedlings were potted into 3½-inch liners using Sunshine[®] Mix #4 with Rootshield[®] added at a rate of 3 tablespoons/yard³ of soil.

RESULTS

No treatment:	2% germination
2 month stratification:	45%–50% germination
3 month stratification:	60% germination
3 month stratification with pine charate:	95% germination

CONCLUSION

Two months of chilling improved the germination rate, although the seedlings lacked vigor and the survival rate was low. Treating seeds with 3 months of chilling improved the germination rate with the same survival rate with or without the charate. Three months of chilling with charate added resulted in the highest germination rate.

LITERATURE CITED

- Emery, D.E.** 1988. Seed propagation of native California plants. Santa Barbara Botanic Garden, Santa Barbara, California.
- Keeley, J.E., and C.J. Fotheringham.** 1998. Smoke-induced seed germination in California chaparral. *Ecology*, 79(7):2320–2336.