

TIPS for BETTER RESULTS when STARTING from SEEDS

When growing plants from seed the 3 main considerations are:

SEED SIZE

- It can be hard to determine in very small seeds, we use slightly different approaches to sowing the seeds depending on the sizes of the seeds.

SOIL MEDIUM

- Soil medium must be compacted, not loose, because the soil will settle when it is watered
- A basic rule of thumb is that the seed should not be sown any deeper than twice the diameter of the seed.
- **Seed-starting soil mixes can be purchased, or you can make them for yourself:** Our Home Ground recipe; equal parts of perlite, vermiculite, vermicompost (worm castings) and either peat moss or coir fiber.
 - Perlite provides good drainage without any nutrients
 - Vermiculite aids in drainage and provides some nutrients
 - Vermicompost adds all the benefits of good mild compost
 - Peat moss or Coir fiber retains moisture
 - Always work with a moist, never soggy mix, and never sow or plant into dry soil mixes.

TIME OF YEAR

- CA native perennials can be sown in summer, set outside in a protected environment and allowed to experience the declining day length and the variations in day and night-time temperatures.
Be patient; sometimes it can take months!
- Annuals, especially desert species, will germinate almost any time of year when the days are warm and the soil becomes moist.
- Some seeds will respond well to the controlled indoor situation of a gro-light and bottom heat of about 75 to 80 degrees. Start with light set at twelve hours on and twelve hours off, gradually lengthening the 'daylight time'. When using tap water, especially on new seedlings, allow it to 'gas off' the added chemicals, and be sure the water is at ambient temperatures.

Dust-like seeds:

Fringecups (*Tellima grandiflora*)

Sticky Monkeyflower (*Diplacus aurantiacus*)

On a compacted soil mix add a layer of vermiculite on top, and simply sprinkle the seed on to the surface, letting it drop down through the vermiculite to the soil surface and then press down to assure good seed to soil contact.



Tiny seeds:

All the Clarkias	Baby five-spot (<i>Nemophila maculata</i>)
Chinese Houses (<i>Collinsia heterophylla</i>)	Baby blue-eyes (<i>Nemophila menziesii</i>)
Globe Gilia (<i>Gilia capitata</i>)	Desert Bluebells (<i>Phacelia campanularia</i>)
Birds-eye Gilia (<i>Gilia tricolor</i>)	Caterpillar Phacelia (<i>Phacelia cicutaria</i>)
Elegant Madia (<i>Madia elegans</i>)	Tarrow (<i>Achellia millefolium</i>)
Rosilla (<i>Helenium puberulum</i>)	Yellow Evening Primrose (<i>Oenothera elata</i> spp. <i>Hookerii</i>)
Skullcap (<i>Scutellaria californica</i>)	Foothill penstemon (<i>Penstemon heterophyllus</i>)
Blue-eyed Grass (<i>Sisyrinchium bellum</i>)	California Bee Plant (<i>Scrophularia californica</i>)
White sage (<i>Salvia apiana</i>)	
Black sage (<i>Salvia mellifera</i>)	

Rough up the compacted soil mix just a bit, and sprinkle the tiny seed onto the soil surface, then cover with a thin layer of vermiculite and press down to assure good seed to soil contact.

Small seeds:

California Poppy (<i>Eschscholzia californica</i>)	Gumplant (<i>Grindelia stricta</i> var. <i>platyphylla</i>)
Tidy-tips (<i>Layia platyglossa</i>)	Blue Flax (<i>Linum lewisia</i>)
Fern-leaf Phacelia (<i>Phacelia tanacetifolia</i>)	

Rough up the compacted soil surface, drop the small seed into it, rough it up a bit more and press down to assure good seed to soil contact, and then add a thin layer of vermiculite.

For medium seeds:

Delta Sunflower (<i>Helianthus annuus</i>)	Narrow-leaf Milkweed (<i>Asclepias fascicularis</i>)
Bi-color Lupine (<i>Lupinus nanus</i>)	California Buttercups (<i>Ranunculus californicus</i>)
Bush Lupine (<i>Lupinus arboreus</i>)	

Rough up the compacted soil surface and drop the medium seed into the soil, add a thin layer of soil and compact again, and then add a layer of vermiculite on top.

Large seeds:

Showy Milkweed (<i>Asclepias speciosa</i>)	Sacred Datura (<i>Datura wrightii</i>)
Hummingbird Sage (<i>Salvia spathacea</i>)	Mission Mallow (<i>Malva assurgentiflora</i>)

Create rows that are about the depth of half the diameter seeds that you are sowing, drop the seed, spacing them within these rows, add more soil on top and compact again, then add a layer of vermiculite on top.

It's always a good idea to "hedge your bets" with seeds by trying different methods for the same species. Keeping detailed notes on your methods will also prove to be very useful.