The conditions for high germination rates and success in growing strong seedlings is:
- warmth (70-90 deg. F),
- bright light,
- soil that drains well,
- even moisture from watering,
- high humidity,
- and air circulation,
- and patience. A few days or even hours of inconsistent conditions can quickly lead to disaster.

**Germinating desert tree, shrub and other large seeds:**

1. Soak large, hard seeds overnight (up to 36 hours) in water to start the germination process.
2. Bury seeds to a least the depth of the seeds thickness.
3. Germinate seeds in pots with sterile soil (1/2 peat moss and 1/2 perlite is one popular mix) or plant directly into non-sterile commercial potting mix (approx. 75% tree compost and 25% sandy loam) or plant directly into the garden.
4. Germinate in full sun during growing season. Soil needs to be 75 deg. F. + for quick germination.
5. Provide plenty of water until seeds are established. Keep evenly moist until roots are fully developed.

**Germinating desert tree, shrub, ground cover and other small seeds:**

1. Sow directly into rich garden soil or in pots with commercial potting mix or (our favorite) 1/2 peat moss and 1/2 perlite. Cover with a thin layer of soil and keep moist until seeds germinate. After seeds germinate, decrease moisture level.

Germinating Cacti Seeds: Sow seeds in compost. There is a great debate as to the best "compost". A popular mix consists of 50% aged, black, fine compost (from bark), 15% sandy, sterile loam, 15 % pumice or perlite, and 20% fine peat moss. I use a mix of 1/2 peat moss and 1/2 perlite. Shallow (3" deep) plastic grower's trays with newspaper lining the bottom make excellent growing containers. Other have good luck with very different mixes and containers.

Sprinkle seeds on surface, they should not be completely covered. Water from beneath. If watering from above, be sure that the mist is quite fine. Seal growing area with glass or plastic,
leaving plenty of room over the seeds for ventilation. Maintain a soil temperature of 70-85ºF. Bottom heat is very effective. Keep moist, having a sterile soil with peat moss and pumice is very healthy for the seedlings. Good moisture, good drainage very bright light and heat and aeration are important factors for high germination rates. Commercial growers use a general fungicide so that the frequent watering and misting does not encourage fungus attacks. The conditions that young seedlings like are the same conditions that most fungi like. The cacti can become a quick meal if the moisture content gets out of whack or if the soil is not reasonably sterile.

When germination commences, make sure that the infants receives indirect, bright light (do not place in sun). Allow good air flow. Keep warm 70-90ºF. When seedlings begin to overcrowd the container, thin them using a spoon. Try not to disturb the roots. During the first winter season, make sure to keep plants warm, depending upon the variety. Allow to dry between watering but not allow to get too dry. After your first winter, slowly harden the plants by a longer drying period and brighter and brighter light. By year 2 they should be strong starts.

Note: Some of our desert tree seeds have been treated with SEVIN (a pesticide) to control weevils.