



## ARIZONA-SONORA DESERT MUSEUM PLANT CARE INFORMATION

### CARE FOR POTTED CACTI AND OTHER SUCCULENTS IN DESERT CLIMATES

**Sun:** We recommend keeping potted cacti outdoors if possible; it is difficult to provide sufficient light and temperature cycles indoors. Some cacti can tolerate full sun in a pot, but most species will do best under light shade, especially during the hottest part of summer. Most small plants (2 to 6 inches tall) will sunburn and should be kept in filtered sunlight. Greenhouse-produced cacti must be gradually acclimated to full sun, regardless of size. If your plant has an "S" written on the pot, or on a tag in the pot, this marks the side of the plant that is used to full sun. Do not expose the other side to full sun! If grown indoors, ample light is necessary to avoid weak, vining growth. At least 2000 footcandles of light for at least 12 hours per day is recommended as a minimum (full sunlight is about 10,000 footcandles). Full sun through an un-shaded window is almost sure to burn, because the usually poor indoor circulation fails to carry off excess heat. If you don't have a sunny window artificial lighting is feasible. A bank of four cool-white fluorescent tubes mounted less than two feet above the plants is sufficient for most species.

**Temperature:** Desert cacti generally need high temperatures to grow well. The days should be in the 80s or 90s°F during the growing season. Tropical, montane, and coastal desert cacti can often do well with lower temperatures. It is necessary to know the origin of your plants. The frost hardiness of cacti varies greatly from no frost at all to those that tolerate below zero°F. Again, it is necessary to know the native climate of your plant. Greenhouse-produced hardy species must be grown outdoors for a summer to harden off, otherwise they need protection the first winter.

**Water:** Watering frequency depends on growing conditions. Check the soil moisture in the pot every few days. The potting medium should be allowed to dry out nearly but not completely between waterings. In general, once per week during the growing season should be adequate. Smaller pots may need more frequent watering, larger pots less. Heed the advice: "When in doubt, don't water". In winter (from about November thorough March) when most cacti are dormant they should be watered only about once a month in small pots or not at all for 8" and larger pots. If you live in a wet climate, many cacti will do well outdoors in summer if sheltered from rain or planted in an exceptionally well-drained medium. Do not use sodium-softened water on any plants.

**Fertilizer:** Regular fertilization is necessary to maintain healthy potted cacti. Apply a complete fertilizer at the rate recommended on the label once a month during the growing season, or better, twice a month with half-strength.

**Soil:** A well-drained and near neutral potting soil is essential. Most commercial potting mixes are mainly humus and are both extremely acid and water retentive; this is good for many tropical house plants but deadly for cacti. (Fusarium rot thrives in acid soil.) These bagged products should be mixed with equal parts of pumice, perlite, or very coarse sharp sand. Then add 1 to 2 tablespoons of limestone per 6" pot to raise the pH to neutral or slightly alkaline. Do not pot plants in garden soil; it usually turns to brick in a short time. The best time for repotting is spring to mid summer. Use a pot only about 1-2" radius larger than the previous pot. Do not water for one week after repotting to allow injured roots to heal.

