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# G74-187 Care of Cactus in the Home

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# Care of Cactus in the Home

**The care and propagation of cacti is featured in this NebGuide. A special section on Christmas cactus is included.**

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Cacti are among the most fascinating groups of indoor plants. Often described as arid desert plants, they also are found in forests and on prairies. In Nebraska several native species of cactus intermingle with prairie grasses.

## Watering

Watering properly is one of the most important factors in cactus culture. Soil mixture, containers, drainage, temperature, size of plant and type of plant all influence water use, so no absolute schedule can be given for watering.

Careful observation is the best way to determine a plant's water needs. During the active growing season (spring and summer), water when the top 1/2 inch of soil feels dry to the finger.

The soil should be thoroughly wetted at each watering, and allowed to dry before water is added again.

Dormant cacti need less moisture. A light watering every few weeks is sufficient. Do not soak the soil during the dormant period.

## Soils

Good drainage is essential in any soil mix, yet the soil mix also must have moisture retention properties, along with adequate nutrients. A general growing medium for arid species of cacti consists of 1/3 peat moss, 1/3 garden soil and 1/3 sharp (builders') sand. Equal parts sand and a good house plant soil mix also will do.

Many modifications of these mixes can be used. Tropical type cacti require more organic matter in the mix. Incorporating some pea-sized gravel in the mix improves drainage.

Cacti should be repotted as needed, rather than on a regular schedule. Repot if the cactus plant is within 1/4 inch of the container wall or edge of the soil ball. Repot into a container only slightly larger than the present one. Repotting into a container too large may lead to a tendency to overwater.

Set the plant in the new container at the same level it was originally growing and fill around it with damp soil. Wait several days before watering so damaged roots will have time to heal.

## Fertilizer

Like other types of house plants, cacti need fertilizer, but in smaller amounts. From spring to fall they can be fertilized every two to three months with a low nitrogen fertilizer such as 5-10-10. Excess nitrogen can cause succulent growth, leading to insect, disease and other problems. Time-released fertilizers also can be used, but need only be applied once in the spring.

Do not fertilize newly repotted plants, unrooted plants, or plants going through a dormancy period.

## Light

Most arid species of cacti require bright sunlight to grow well. Windows facing south provide the most sunlight, while windows facing east and west usually offer some direct sun for at least part of the day.

In some homes, artificial light may be necessary to supplement natural light.

## Temperature

Proper temperatures for raising cacti vary with the season. Arid cacti plants tolerate temperatures of 90-100°F during the active growing season. They can be placed outdoors in late spring, but for several weeks may need to be shaded during the hottest part of the day until they adjust to the temperatures and higher light intensities. In the early fall it is necessary to bring them indoors before a frost.

See NebGuide *G91-1022, Guide to Growing House Plants*, for details on conditioning house plants to a change in environment.

Dormant cactus plants do best at temperatures from 45-55°F. The cooler temperatures develop sturdier plants and encourage the formation of flower buds. Cool winter temperatures are not a necessity for cactus plants, but these conditions approach the environment in which cacti normally grow.

Convenience often will decide the temperature at which cacti plants are maintained.

## Propagation

Cacti usually are propagated by seeds, cuttings, or offsets. Some species are more difficult to propagate than others.

Cuttings are pieces of cactus stem without roots. Allow cuttings to dry for a few days before placing in a rooting medium. This permits the cut surface to heal, or callus. The callus helps prevent rotting when the cutting is placed in the rooting material.

Place cuttings in a rooting medium of equal parts peat moss and sharp sand. Place in a sunny location

and water occasionally. Too much water should be avoided.

Pot the cutting after roots have formed.

Offsets are sections found at the base of the plant. Rooted offsets can be separated from the parent plant and potted immediately. Unrooted offsets should be treated similarly to cuttings.

Most species of cacti may be propagated from seeds. A simple way of germinating cactus seed is to spread the seed on the surface of moist, sterilized soil and barely cover with sand. Place the container in a plastic bag and seal. Some types of seed will germinate in a few days while some may require several months.

Remove the plastic bag when seeds have germinated. Transplant the seedlings after a vigorous root system has formed. This will take several months. For more details on propagating methods see NebGuide *G77-337, Propagating House Plants*.

Grafting, the union of two or more different plants, produces unusual growth forms and provides a decay-resistant stock for certain kinds of cacti. Grafting also can save a plant with a rotted stem or root system.

The grafted plant consists of two parts, the stock and the scion. The stock, or understock, is the bottom part of the plant growing on its own roots; the scion is a portion of another plant joined to the top of the stock. See *Figure 1*. The stock and scion must be botanically compatible to have a successful graft.

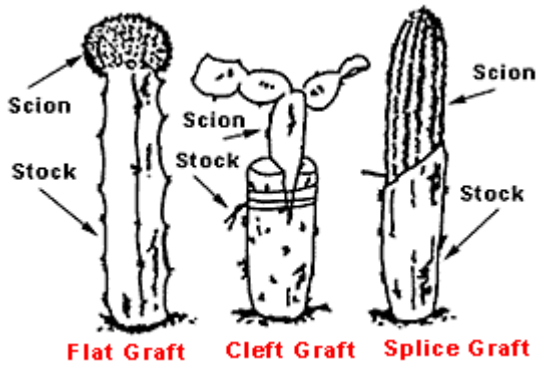


**Figure 1. Cactus grafting methods.**

Select the cacti to be used as the stock and scion and make appropriate cuts with a sharp knife or razor blade. The grafting should be done when the stock is actively growing. It is **very important** to make sure that the surfaces to be joined on the stock and scion are clean, fit closely together and do not dry out before they are placed together.

Hold the scion in place with string or rubber bands or by running several wooden or plastic toothpicks through the graft union. Keep the plant in a moist, warm place so the union will not dry out and force the graft apart.

Usually it takes about two weeks for the stock and scion to unite. Then the bindings can be removed.

There will be a shrinking and discoloration of the union if the graft has failed. In that case repeat the process, making sure the graft union does not dry out.

## Diseases and Pests

The major diseases of cacti are root and/or stem rots. Excessive watering should be avoided to prevent these rots. Make sure there is good air circulation between plants.

Insect and related pests on cacti include aphids, red spider mites and mealy bugs. Make sure newly purchased plants are free of pests before they are added to your plant collection.

If insects or mites do become established on your plants, consider using a registered insecticide or miticide to rid the plants of these pests.

## Christmas Cactus

There are many new selections of types of Christmas cactus to choose from. Christmas cactus (*Schlumbergera bridgesii*), in contrast to arid species of cactus, requires a growing medium with more organic material. A good soil mix consists of two parts peat moss, one part garden soil and one part sand. Good drainage is essential.

Fertilize Christmas cactus plants monthly from the time the plants finish blooming through late spring. Reduce fertilizer during fall and early winter.

Christmas cactus should be given less water starting in April or May, and continuing to September. This encourages flower bud formation. Once buds set, more water will be needed.

Plants can be set outdoors in partial shade in late spring after the last frost, and brought indoors before danger of frost in the fall.

Christmas cacti tolerate temperatures of 65-90°F during most of the year. Cooler temperatures of 45-55° F in the fall aid in flower bud formation.

Long periods of direct sunlight can cause sunburning. An east or west window is a good location to maintain a Christmas cactus. These plants often will not flower because of excessive artificial light in the home at night during the fall season. If this is a problem, you may wish to place your plant in an unused room or closet each night, starting in September, until the buds are showing.

Christmas cacti commonly drop unopened flower buds. This may be caused by an excessive number of buds or a sudden change in temperature, light or other environmental factors.

The following is a partial list of commonly grown cacti grouped according to their general temperature and light requirements. Many other species are available and adapted to growing in the indoor landscape.

## List of Indoor Cacti and Their Requirements

### Temperatures

**65-90°F in spring and summer**
**45-55°F in fall and winter**

Brain cactus (*Echinofossulocactus* spp)
Christmas Cactus (*Schlumbergera bridgesii*)
Crown Cactus (*Rebutia* spp)
Easter Cactus (*Rhipsalidopsis* spp)
Epiphllyums
Fire Barrel (*Ferocactus acanthodes*)
Golden Barrel (*Echinocactus grusonii*)
Hedgehog Cactus (*Echinocereus* spp)
Living Rock (*Ariocarpus fissuratus*)

Mammillaria (*Mammillaria* spp)
Opuntia (*Opuntia* spp)
Peanut Cactus (*Chamaecereus silvestri*)
Peruvian Old Man (*Espostos lanata*)
Saguaro (*Carnegiea gigantea*)
Star Cactus (*Astrophytum ornatum*)
Thanksgiving Cactus (*Schlumbergera truncata*)

**65-90°F in spring and summer**
**50-55°F in winter**

Artichoke Cactus (*Obregonia denegrii*)
Ball Cactus (*Notocactus* spp)
Column Cactus (*Cereus peruvianus*)
Silver Torch (*Cleistocactus strausii*)

**65-90°F all year**

Neoporteria (*Neoporteria* spp)
Woolly Torch (*Pilosocereus maxonii*)

## Light

### Bright

Artichoke Cactus (*Obregonia denegrii*)
Ball Cacti (*Notocactus* spp)
Brain Cactus (*Echinofossulocactus* spp)
Column Cactus (*Cereus peruvianus*)
Firebarrel (*Ferocactus acanthodes*)
Golden Barrel (*Echinocactus grusonii*)
Hedgehog Cactus (*Echinocereus* spp)
Living Rock (*Ariocarpus fissuratus*)
Mammillaria (*Mammillaria* spp)
Neoporteris (*Neoporteris* spp)
Opuntia (*Opuntia* spp)
Peanut Cactus (*Chamaecereus silvestri*)
Peruvian Old Man (*Espostoa lanata*)
Saguaro (*Carnegiea gigantea*)
Silver Torch (*Cleistocactus strausii*)
Star Cactus (*Astrophytum ornatum*)
Woolly Torch (*Pilosocereus maxonii*)

### Moderate

Christmas Cacti (*Schlumbergera bridgesii*)
Crown Cacti (*Rebutia* spp)
Easter Cacti (*Rhipsalidopsis* spp)
Epiphllyums

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