



CACTI AND SUCCULENTS

URI COLLEGE OF THE
ENVIRONMENT AND LIFE
SCIENCES (CELS) OUTREACH
CENTER

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For more information:

Call:

In RI: URI MGA Hotline
1-800-448-1011
Mon.-Thurs. 9:00 a.m.—2:00 p.m.

In MA and CT: 401-874-2900

Outside New England please
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Websites:

URI Master Gardener Association
www.urimga.org

CELS Outreach Center
www.uri.edu/cels/ceo

Desert plants are excellent plants in the home because naturally store and conserve water and do not need quite as much care as tropical plants in the home. As house plants they offer a variety of unusual, often grotesque shapes, some of nature's most colorful flowers, and lasting durability and reliability.

Cacti and succulents represent a diverse group of plants from desert and tropical areas throughout the world. So different are many of these plants that a special knowledge of certain species may be necessary. The desert plants belong to four botanical families: Cactaceae (cactus), Crassulaceae (orpine), Aizoaceae (carpet weed), and Euphorbiaceae (spurge). They are frequently grouped together for display in dish gardens and hanging baskets.

Sunlight is the key environmental factor in growing desert plants in the home. Windows with a southern or western location are the best location for cacti and succulents. Many will thrive under incandescent or fluorescent lights.

Moisture is also important. The amount of water needed for each pot depends on the time of year, the size of the plant, the type of rooting media and the size of pot. Over-watering is the principal concern and well-drained potting soil is essential. Water plants thoroughly. A light, shallow soaking is equivalent to no water. Pots should provide adequate drainage so that roots are not standing in water. Wick-watering should be avoided as cacti and succulents need to dry out between waterings. It is easier for desert plants to survive in dry soils than in wet, waterlogged soils.

Cacti and succulents are dormant during the winter months and watering levels should be reduced accordingly. During their active growing periods in spring and summer, desert plants can actually consume as much water as foliage plants. The watering schedule is introduced to the plant gradually. The months of October and March are transition periods. It is a time when watering is gradually reduced or increased according to the plant's needs for the coming season.

Cacti and succulents adapt to wide fluctuations of temperature. Exposure to temperatures between 40 and 90 degrees F for long periods is not harmful. In fact, many desert plants will initiate flower buds when grown in a cool, dry, well-lighted room. Night-

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When trade names are used for identification, no product endorsement is implied, nor is discrimination intended against similar materials. Be sure that the pesticide that you wish to use is registered in the state of use.

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time temperatures of 45 to 50 degrees F are suitable to stimulate flower bud formation. In the Northeast, many hobbyists grow plants along windowsills. Be careful that night temperatures do not drop below 35 degrees F.

The Thanksgiving and Christmas cacti will bloom during the holiday season if light and temperature conditions are suitable in the home. In mid-September, plants are introduced to a short day length of nine hours and night temperatures between 55 and 65 degrees F. Flower buds will appear after eight to ten weeks.

Cacti and succulents prefer soils which are well-drained and do not have a high water-holding capacity. Sandy soil mixtures are recommended. Special cacti soils can be easily prepared as long as all ingredients are sterilized to guard against soil-borne diseases. A standard soil mixture for desert plants calls for: one part garden soil, one part coarse builder's sand, and one part peat moss. To each 12-quart pail of this mixture add half a cup of bone meal. Clay pots are preferred as they allow soils to dry out rapidly between waterings.

Epiphytic succulents are grown in a different soil mixture. These plants prefer soils that are higher in organic matter. They do not tolerate dry conditions as do the many cacti and succulent plants to which they are related. Soil mixtures for these plants usually contain shredded fir bark or sphagnum moss.

Cacti and succulents are fed monthly with any of several houseplant fertilizers available at local garden supply stores. The pH of the soil should be tested periodically, as cacti prefer soils with a high calcium (lime) content. Soils that are very acid tend to be low in lime. Agricultural lime can be added to homemade soil mixtures at the rate of one cupful per bushel.

There are very few insect and disease pests that attack desert plants. Occasionally, though rarely, one of the following three may become a problem: **Black Stem Rot** caused by overwatering and not by any disease organism and when damage is slight, stem rots will disappear as watering practices are corrected. **Mites**, especially red mites and spider mites. **Mealybugs** injury to most cacti species is slight, but infections can quickly spread to more susceptible foliage houseplants.

Many insect pests can be removed by hand or washed from the plant. Mealybug is easily controlled with methyl alcohol applied to the insect with a cotton swab. If necessary a multi-purpose pesticide recommended for house plants may be used to control insect problems. Follow the label directions closely.

Most cacti and succulents are easily propagated by seed, division, and grafting. Cuttings should be allowed to dry for one to three days before placing in the rooting medium. Coarse sand and vermiculite (sterilized) are common rooting media. During the period of rooting, cuttings should be kept watered and exposed to indirect light only.

Adapted from Hubert P. Conlon, Cornell Cooperative Extension, 2001