UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION

UC MASTER GARDENER PROGRAM OF SAN LUIS OBISPO COUNTY



The UC Master Gardener Program is a public service and outreach program under the University of California Division of Agriculture and Natural Resources (UC ANR), administered locally by participating UC Cooperative Extension offices (UCCE). Our mission is to extend research based knowledge and information on home horticulture, pest management, and sustainable landscape practices to the residents of California.

SUCCULENTS: Cultural Practices

Gene Schroeder, SLO Master Gardener

What are cactus and succulent plants? They are plants that have evolved to develop characteristics that allow them to survive infrequent or minimal amounts of water.

Cactus and succulents can sometimes survive months of drought, or moisture that arrives only as fog or dew. This adaptation always includes a method of preserving water for lean times. This water storage organ may consist of thickened, fleshy stems, roots, or leaves. Plants exhibiting such storage organs are termed succulent. Succulents occur in many plant families and are found naturally in the xeric or desert regions of the world. Members of the cactus family are recognizable to most, but other common succulents such as Agave, Aloes, Euphorbias and Mesembs (ice plant) are visible in parks and landscapes all over California. To answer a common question: All cacti are succulent but not all succulents are cactus. In addition, there are many lesser known succulent plants, and the combination of striking physical form, outstanding blooms and general ease of maintenance make them desirable as both landscape and pot collectibles.

BASIC CARE Like all plants, succulents require the basics of water and light. However, they are much less fussy about adverse conditions then other plant groups. The best approach comes from careful observation of your plant's responses. As you get to know your plants, you will learn to recognize when they need water, more or less light, etc.

WATERING

Cactus and succulent plants are water thrifty by nature. They still require water, but less frequently then the ordinary leafy houseplant. When you water, it is best to flood or soak thoroughly until water runs freely from the bottom of the pot. Don't water again until the soil mix is almost dry. Use a water meter or bamboo skewer to check that the mix is dry at least 2/3 the way down. Water less frequently when the plant is resting or dormant (usually in winter). In almost all cases, succulents do better with underwatering then over-watering.

Most succulent plants need strong light to develop the best forms and blooms. Most can take full sun for at least a few hours a day but others, especially greenhouse grown seedlings, can quickly sunburn in our mid-day summer sun. Start your new plants in filtered light and move them gradually into more light as you watch for signs of sunburn and excess pot heat that can cause damage. Very few succulents do well in filtered light

VENTILATION Cactus and succulent plants require good ventilation with lots of fresh air preferred. Don't expect them to survive in terrariums or stuffy rooms.

SOIL MIXES The soil mix should be extremely friable and quick draining so the roots always have a good supply of air and do not sit in water. A good basic mix will consist of ½ porous material (horticultural pumice, Perlite, or decomposed granite) and ½ organic material (composted fir or redwood, coir, or a commercial planter mix).

CONTAINERS Pots or other containers for succulents must have lots of drainage holes, or at least one large one to ensure free drainage of water and access to oxygen. Don't use saucers or other containers that would cause the pot to sit in water. Wet feet are acceptable for palms or ferns, but not for succulents. For the beginner, unglazed red clay or terra cotta pots are the best. Plastic grower pots and glazed stoneware pots are also suitable but will require a little more attention to watering. Select the smallest container that seems appropriate for the plant's size and shape. A pot 1-2 inches greater in diameter than the plant is adequate.

- **FERTILIZER** Succulent plants do best with a low nitrogen fertilizer applied at very low strength with each watering. A 15-15-15 balanced fertilizer at ¼ the recommended rate is a good start. Common commercial fertilizers can be applied at ¼ the recommended rate for houseplants for good results.
 - **PESTS** Most succulent plants are resistant to a lot of common garden pests. The usual pests encountered are mealy bugs, scale, and spider mites. Most are easily controlled by a variety of insecticides available from your local garden supply. Be sure to use these strictly according to label instructions.

RESOURCES FOR SUCCULENT PLANT INFORMATION

PLACES TO VISIT:

- **The Leaning Pine Arboretum** is on the Cal Poly campus. Emphasis is on plants from the "Mediterranean climate" areas of the world, the home of many succulent plants. Great ideas for plants and landscape design are found throughout the gardens.
- The San Luis Obispo Botanical Garden has a smaller but growing garden with many succulents and other water thrifty plants including natives.
- **SLO County Education Office** (across 101 from Cuesta College) has mature landscaping with cacti and succulent plants.
- **The Garden of the Seven Sisters** is the SLO Master Gardeners demonstration garden . Demonstration plots offer education on most garden subjects, including a succulent garden.
- **Lotusland** is the historic Montecito estate of Ganna Walska, now a private non-profit botanical garden. The 37 acres of theme gardens has something for everyone but you can't look in any direction without seeing succulent plants. A must visit.

LOCAL ORGANIZATIONS:

- Central Coast Cactus & Succulent Society The local affiliate club of the Cactus & Succulent Society of America, has monthly meetings at the SLO Library plus other events including their annual Memorial Day weekend, judged show, and sale at the Ludwig Center.
- Montana de Oro District of California Garden Clubs, Inc Area garden clubs have long recognized the unique attributes of succulent plants in both horticulture and landscaping. Check their website for a list of local clubs.

WEBSITES:

- Cactus and Succulent Society of America
- Cactus Guide and Succulent Guide: extensive online resources for identification and cultivation of succulents
- Desert-Tropicals: plant identification with images.
- Cactus and Succulent Plant Mall

BOOKS:

- Baldwin, Debra Lee. Designing with Succulents. Portland, Or.: Timber Press, 2007.
- Lyons, Gary. Desert Plants: A Curators Introduction to the Huntington Desert Garden. San Marino, Calif.: Huntington Library, 2007.
- Lyons, Gary, and Melba Levick. *Desert Gardens*. New York: Rizzoli, 2000.

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