

~~I've always been interested in plants, particularly those that are atypical.~~ As a horticulturist, I deal with ~~so many mundane different kinds of plants, but it's the atypical ones that have always interested me the most.~~ But I can still remember my first cactus, — a gift from my grandmother on my 6th-~~sixth~~ birthday. -It was a *Notocactus leninghousii*, also called a golden torch, and it was certainly atypical. I don't remember how long that cactus survived, but I do remember that I was fascinated by it.

The kit greenhouse in which I grow my collection is made by the Santa Barbara™ company. ~~[[If "Company" is part of the name, uppercase it and delete the trademark symbol]]~~ -It is redwood, 6 feet wide by 8 feet long, with slat benches and a glazing ~~[[Meaning the redwood is glazed? Or is the frame redwood and the walls and ceiling fiberglass? Is this a greenhouse term that the reader will recognize?]]~~ of slightly textured fiberglass. The greenhouse is located in a sunny (south-facing) asphalt-covered side yard of my house. I paved the floor, because it is easier to keep clean, and soil-dwelling pests such as earwigs, slugs, and root mealybugs are less of a problem.

I have about 300 succulent plants, 200 of them inside the greenhouse. -The others live under~~neath~~ a clear polycarbonate patio cover adjacent to our house, on the patio, or on a light table inside the house. - I also have a few plants, ~~in various spots around the inside of the house,~~ mainly decorative low-light types, ~~in various spots inside the house.~~ This is plenty to keep me busy, although many serious collectors have thousands of plants. ~~-I tend to collect mainly smaller species of plants so that I can have more of them!~~ I probably spend ~~one-1~~ to ~~one and half~~ 1 1/2 -hours per week maintaining my collection in the summer, and 15 minutes to half an hour in the winter. ~~I tend to collect mainly smaller species of plants, so that I can have more of them!~~ The good thing about succulents is that there is always something that *could* be done with them, but not too much that *has* to be done with them ~~right now~~. -Succulents are the only type of plant collection that my lifestyle ~~of work, can handle as long as I am working, have a family,~~ and ~~have~~ other interests ~~can handle~~.

~~I'm lucky that I don't have to go to great expense or trouble to heat or cool my greenhouse.~~ Most of my plants can survive at temperatures down to about 30°F. ~~-I keep tabs on the temperature inside and outside my greenhouse with a maximum-minimum~~

thermometer. ~~My~~The greenhouse has a floor heater and a fan to guard against extremes of winter cold and floor heater. However, heat is more of a problem than cold in my area, so I have used the heater only twice ~~but and~~ have never used the fan. ~~I keep tabs on the temperature inside and outside my greenhouse with a min/max thermometer. As heat is more of a problem for me than cold~~In the winter, I rely on custom-made canvas covers that are rolled over the roof [[and down the sides?]] at night; ~~in the winter, they prevent some heat loss and raise the temperature inside the greenhouse by several degrees. I use little or no shade cloth on the greenhouse, and bring some of the more expensive or sensitive species (such as *Euphorbia*) indoors.~~

In the summer, I open vents and use and shade cloth and opening vents in the summer. The shade cloth that is 50 percent% white to keep direct sun off the plants and to keep the greenhouse 5 to 10 degrees cooler than outside. ~~The canvas covers prevent some heat loss at night, and raise the temperature inside the greenhouse by several degrees.~~

~~During the winter, I have little or no shade cloth on the greenhouse and bring some of the more expensive or sensitive species (such as *Euphorbia*) indoors. It is surprisingly, to note that many succulent plants originate from partly shaded microenvironments—within the shelter of a tree or rock, for instance, or on the nNorth side of a canyon. Sometimes only a few hours of direct sun on a hot day can sunscald [[“sunscald”?]] a sensitive or non-acclimated plant.~~

~~I’m lucky that I don’t have to go to great expense or trouble to heat or cool my greenhouse.~~ Most succulents are from arid regions and can suffer from “wet foliage” diseases. Growers in the humid southern United States and tropical areas may need to provide ventilation through the use with electric fans, cooling units, and dehumidifiers. In these areas, soils may also dry more slowly, due to high humidity and reduced water uptake by the plant, calling for less frequent watering and extra-extra-well-draining soil mixes. ~~And because~~However, not all succulents are from desert environments, and such growers may also want to select succulent plants that are more tolerant ~~to of~~ higher humidity —, for example, “jungle succulents” such as *Schlumbergera*, the popular Christmas cactus.

Sanitation is all important. Once a year I remove everything from the greenhouse and spray it inside and out with a high pressure hose attachment. I also scrub the outside of the roof, which tends to collect dust and debris. Inside, the underside of the benches must be clean—they are a favorite hiding place of mealybugs, which is the succulent grower's number one problem. Because the plants are not being rained upon, they also tend to collect dust where mites seem to thrive. To combat this, I spray the greenhouse plants with water at least once per year—but only on a cloudy day. Water droplets on plants can act like a magnifying glass. I don't spray plants with fuzzy or hairy foliage, which would stain their plumage.

Correct watering is essential, but wWatering guidelines for cacti and succulent plants vary, and can be confusing. ~~Yet correct watering is essential.~~ There is no general rule of thumb, but most succulents generally ~~however~~, like to dry out between waterings. I often judge the water requirement of my smaller plants by lifting the pot and feeling how heavy it is. ~~After years of doing this, I can gauge~~ how wet or dry the dampness of the soil ~~is~~. Small ~~plant~~ containers dry out faster than large ones, so during the summer I ~~will~~ have to water some of my 2- ~~or and~~ 3- inch pots twice per a week. ~~The appearance of~~ Ssome succulents ~~can~~ also indicate that they need water by their appearance. ~~For example, I will not water certain plants until they visibly begin to “wrinkle”.~~

A bonus of hand-watering succulents in a greenhouse is that you can grow plants from all around the world with different moisture needs. I water plants with a small watering can that has a small, 1/3-inch spout. [[1/3 inches is an odd size—say 3/8 instead?]] Too much water coming out too fast can injure the shallow, fine roots of small plants, as well as disrupt the gravel top dressing or the bare soil surface. ~~I also have a small~~ diameter “water wand” hose attachment for watering some of the larger plants. I try always to fill my watering can from the rain barrel, which is right outside the greenhouse door.

I make my own soil mix from regular houseplant potting soil, perlite, and sand. ~~I tailor the soil to meet the requirements of individual plants—some~~ prefer soil that is less gritty; others like it a bit richer. Soil mixes tend to be a very personal thing with us cactusi people. I generally fertilize succulents once a [[“week”?]] when the plants are in

~~an actively grow~~~~thing rather than during a “resting period, with.”~~ I use a regular water-soluble houseplant fertilizer at half strength.

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_____ Clay ~~or~~ and plastic pots are the most common succulent containers. Which type is better is a ~~very~~ heated topic among growers.—I find that plastic pots are better for plants that I don’t want to dry out too fast.—I place most of my show plants in clay or stoneware pots for aesthetics, but I’ve also seen some very good show plants in plastic pots.

I get plants from many sources, including other collectors, cactus club meetings and shows, mail-order or retail specialty nurseries that specialize in cacti ~~&~~ and succulents, and regular retail nurseries. Are succulent plants expensive?—Sometimes, but I economize by purchasing smaller, less ~~expensive~~ costly specimens, with the—I do occasionally splurge ~~and buy on~~ a more expensive, (usually somewhat rare,) plant.

To find out more about succulents, contact the following:

- **The Cactus ~~&~~ and Succulent Society of America, Inc.,** 2391 E. Cactus Street, Pahrump, NV 89048, ~~(-775)~~ 751-1357, fax (775) 751-1357. [[Fax is the same as the main number—OK?]]—Publishes the *Cactus ~~and~~ Succulent Journal*, available ~~with~~ included with the annual membership fee, and also provides many useful

services, such as a seed bank and slide library. The society sponsors a wonderful annual convention with field trips. Information on the Society, as well as on cacti and succulents in general, is also available from ~~its~~ their Web site at www.cssainc.org.

- **Local cactus & succulent clubs.** Found worldwide. ~~m~~ Most of these clubs have a monthly meeting with a guest speaker. Many clubs are listed under “affiliates” ~~at~~ the Cactus and Succulent Society Web site above. I am a member of my local club. Most clubs also have an annual show and (plant competition), usually with an accompanying sale of succulent plants and related supplies. Many club members grow their own plants for sale.
- **Internet discussion groups.** A popular one is Cacti, etc., ~~found at the address:~~ http://www.labs.agilent.com/bot/cactus_home.
- **Arboretums.** One of my favorites is the Huntington Botanical Gardens in San Marino (in Southern California), which has an outstanding succulent garden as well as a greenhouse full of succulent plants. [\(626\) 405-2100](tel:6264052100).
- **Books and journals on cacti & succulents.** There is worldwide interest in cacti and succulents ~~these plants~~, and many countries besides the U.S. United States have very active clubs and produce wonderful journals. **[[How do you find these — through the Cactus Society Web site?]]**
- **Specialty Growers:**
 - ♣ Highland Succulents, 1446 Bear Run, Gallipolis, OH 45631, ~~(740)~~ (740) 256-1428, fax [\(740\) 256-1454](tel:7402561454).
 - ♣ Arid Lands Greenhouses, 3560 W. Bilby Road, Tucson, AZ 85746, ~~(520)~~ (520) 883-9404, fax- [\(520\) 883-8874](tel:5208838874), ~~Web address~~ <http://www.aridlands.com>, ~~e~~ Email tucson@aridlands.com.