

Article of the month

Growing cacti and succulents

By Rosario Douglas

A common question heard this year at the Show&Sale was related to growing cacti and succulent. Many members of the public wanted to know how much light, how much water, type of soil etc. to give their plants. As usual, rarely do we have simple answers that apply to all plants. When growing your succulents you do have to remember that not all the plants you saw at the Show&Sale come from the same place, country or even continent. That has large implications for the type of climate the plants are accustomed to in the wild. Amount of rain, time of the year when that rain occurs, max and min temperatures, in short, many climate-related issues. Also of note are the soil conditions, which can differ greatly as far as parent rock is concerned. Thus, we have cacti that grow well in limestone while others grow well in granite, sandy or even silty soils.



Nursery owners and plant enthusiasts like you grow a wide variety of plants that may have different requirements to produce optimal growth. Of course, many plants can survive in less than optimal conditions, but then it may not flower or it may not look that great. These are complicated issues to point out when asked how to grow or care for an individual plant. This is the main reason why some basic tips are often provided when people want to know how to grow their succulents. Below are some general recommendations that may help your questions about cultivation of cacti and succulents.

Light: With the exception of some rainforest cacti that are adapted to a fair amount of shade, most succulents including cacti require a decent amount of sunlight to thrive. Many may survive on a windowsill, but “survive” is the word - not thrive. At least 5 hours of good sunlight is ideal for succulents to photosynthesize and grow as a healthy plant. Many plants even turn redder in full sunlight as opposed to greener versions of the same plant that have been grown in shadier conditions in a greenhouse.

Photo: Note how this succulent (*Huernia keniensis*) has stems that are green or redder in the same plant. This plant can be very green or red depending on how much sunlight it gets. Photo by Mike Douglas

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Watering: Succulents are adapted to life without too much water. This varies from group to group, but in general it is safe to say that you can kill succulents faster by overwatering than by under-watering. In general leafy-green succulents such as Crassulas (Kalanchoe, Sedums, Echeverias etc.) require more moisture during the growing season than cacti. Cacti are often better adapted to survive with less water. This is not to say that cacti do not need water during the growing season, but in general during our Spring and Summer and depending on how hot are the conditions where you are growing the plants are (indoor plants require fewer waterings per month) you can water every 7-10 days. It is best to do a through watering, you want to see water coming out of the drainage hole.

Pots: Plastic versus clay. As a rule plants in clay pots dry out faster than those in plastic pots especially in the growing season. Too much water for a plant in a plastic pot could be lethal, yet too little water in a clay pot can be equally damaging. So in general it is best to follow the recommendation above



Soil: There are many mix variations, but in general you want a well-drained mix. I mix my own using 50% sand and 50% soil. Some people like to add a slow release fertilizer. Others also add perlite or vermiculite. This is all a matter of preference but the key is good draining soil and that means never use 100% rich soil, as might be the case for regular non-succulent plants.

Fertilizers: If you are not using a slow-release fertilizer in your soil mix, you can fertilize 2-3 times during the growing season.

Photo: As you can see in this group of cacti entered at the COC&SS 2017 Show&Sale, you can use clay or plastic to grow beautiful specimens. Photo by Mike Douglas



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Top dressing: this is just a thin layer of decorative gravel/pebbles that can be found in different colors and sizes. This keeps the soil from eroding and it enhances the look of the plants.

Winter hardiness: There are a number of cacti and some succulents such as *Talinums* that can survive a freeze in Oklahoma or Texas and there are some cacti that are found even farther north. These are a minority, as most cacti and succulents are not found in very cold areas. Thus, it is OK to take your plants out in the growing season after the freezing danger passes, but they must come in or return to the greenhouse before the first hard freeze happens. If your outdoor plants are in a well-drained area and are protected with mulch or plastic during cold/wet spells in the wintertime, it is possible to grow cacti that usually would not grow naturally in Oklahoma. This is an area where experimentation is often needed to see what can survive the winters in your area.

Diseases: As with any plant there are plenty of possible problems and pests. Aphids (tiny insects that suck the juices out of your plants, spider mites, hungry crickets and grasshoppers), are but a few that come to mind. You can read more about diseases online.

I encourage the reader to check out our club's webpage (oklahomacactus.com) for more links about this topic. Searching the web in general is also a good idea if you are looking for answers to your particular cultivation problem.

My general rule is not to be afraid to try to grow a plant, but at the same time do not expect perfect plants the first or second time around. Join a cactus and succulent club and don't hesitate to ask members that have more experience growing succulents. That is often a good first step. Many succulents are easy to grow and propagate, but if you kill one or two during your learning phase, don't worry, just try again.

Finally in your spare time try to learn more about the particular type of succulent you are trying to grow. It will amaze you to learn where many of the succulents we grow come from, their habitats, pollinators etc.

For example some cacti are pollinated by hummingbirds while others are pollinated by bats.



Photo taken from an article published in the Houston Museum of Natural Sciences website. You can see the article at: <http://blog.hmns.org/2014/06/national-pollinator-week/>



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Included here is a short list of links (there are many more places online to learn about the cultivation of cacti and succulents).

Inside the home

<https://www.gardeningknowhow.com/ornamental/cacti-succulents/scgen/cacti-succulents-inside-your-home.htm>

<http://aggie-horticulture.tamu.edu/databases/cactus/growingcactus/>

Diseases

<http://succulent-plant.com/pests.html>

<http://www.missouribotanicalgarden.org/gardens-gardening/your-garden/help-for-the-home-gardener/advice-tips-resources/pests-and-problems/insects/mealybugs/insect-pests-of-cacti-and-succulents.aspx>

General tips

http://www.csss.org/welcome_visitors/basic_culture.html

<http://succulent-plant.com/cultivation.html>

<http://society.bcsm.org.uk/index.php/cultivation-guides.html>

<https://www.extension.umn.edu/garden/yard-garden/houseplants/cacti-and-succulents/>