

Growing Succulents and Cacti

Succulents are fleshy plants that store water; cacti are also fleshy plants that store water. So, we can call cacti succulents. Succulents are plants that have adapted to survive long periods of drought. Their specialized cells allow them to store water and then release it during dry conditions. When wet, the roots absorb as much water as possible and store it in the leaves, stems, and roots. This stored water is used during the dry times; when it does rain, more roots are produced so that more moisture can be absorbed.

Watering:

Grown indoors, succulents need the same wet and dry cycles. If small amounts of water are used, only the soil surface will be moistened, and the plant will put out only enough roots to find the water. This results in a small root base, and succulents won't thrive this way. When the soil is thoroughly soaked, the roots travel throughout it, meaning the root base will increase and your plant will grow much better. It is very important that all excess water drains away: the roots do not want to sit in it.

Pests:

When overwatered, succulents are susceptible to fungi and bacteria that cause rot. You can tell when a succulent is getting too much water when the leaves turn dark or black and go mushy. You can tell if a plant is getting too little water when the leaves wrinkle and lose their gloss.

Some of the pests that may bother your plant are mealy bugs, spider mites, aphids, and gnats. For mealy bugs, spider mites and aphids my first method of attack is to spray them with a strong stream of water in the hopes of dislodging the pests. It can take more than one good spray to remove them.

Mealy bugs can be a real problem on some succulents but can be easily removed using isopropyl alcohol (rubbing alcohol) spot treatments. Make a solution mixing 7 parts isopropyl alcohol with 3 parts water and dab on mealybugs with cotton swab. If the infestation is really bad you can make a 20-30% isopropyl alcohol to water mixture and spray on infestation. Repeat weekly until infestation is gone. It's always a good idea to do a spot check on a single, possibly hidden, leaf with your mixture before applying to whole plant to make sure it doesn't burn the leaves.

If spider mite and aphid infestations don't respond to water treatment, I use *Safer's® End All® II* when needed because it's compliant for use in organic gardening.

Fungus gnats usually occur when the soil is kept too moist; you'll definitely know that you are overwatering. They lay their eggs in the top inch of soil so rocks in this area will help deter them. If they do become an issue, make sure to allow the soil to dry out thoroughly to create an inhospitable environment. Spray the top of the soil with a soap & water mixture (a few drops of liquid dish soap in 1 cup of water) to kill the larvae. Repeat in a couple of days to ensure you have got them all. This method can be used with all house plants.

Fertilizer:

Potted succulents need periodic feeding. If using a general-purpose fertilizer use about ½ the recommended dose. For example, if it says to dilute 1 tbsp in 1 gallon of water, use ½ tbsp in 1 gallon of water. Too much

fertilizer, especially high nitrogen blends, can increase leaf and root rot problems. Fertilize once a month during the growing season and not at all during the fall and winter months.

High Light Succulents:

In general, succulents that have bright colours need at least 6 hours of direct sunlight. Place them in a south facing window that gets some direct sun. If they start stretching (elongating quickly and stretching toward the light), they need more light. If you don't have enough natural light in winter, you can compensate with a grow light. Light seeking succulents will thrive outside in the direct sunlight during the late spring and summer months. They may need to be protected from the hot afternoon sun, so they don't scorch. Remember, if they've been inside all winter, gradually ease them into the outdoor sunlight.

Low Light Succulents:

Succulents that are naturally green like aloe, haworthia, and gasteria will prefer bright indirect light. Place them near your brightest window or in your brightest room where the sun won't actually hit them.

If they start stretching or leaning toward the light, the pots should be turned. They can also be rotated throughout your house. Put them in the bright window to soak up the sun, then rotate them with a plant struggling in a darker area. Repeat.

Watering Succulent/Cacti Containers

Containers with drainage holes — "soak and dry" method:

Succulents and Cacti like to have their roots soaked, but they don't like them to stay wet. So water thoroughly, making sure all excess drains away before putting them back on their base. They really don't like wet feet; they will rot. Water again after the soil has been dry for a few days. Letting them dry out for a short period of time is better than keeping them moist. Reduce watering in the winter.

Containers without drainage holes:

*(only use this method if the container does not have a drainage hole)

Each of these pots has drainage rocks in the bottom, but it is still important not to overwater. A good rule of thumb is to use a water volume that is equal to half the volume of soil. For example, our small 3" pots hold about 3/4 cup of soil, so use 1/3 to 3/8 cup of water. The tall 3" pots hold about 1 cup of soil, so use 1/2 cup of water. You want all the soil to become wet while avoiding a pool in the rocks at the bottom. Pour slowly to cover as much surface area as possible. Drying out for a short period of time is better than staying wet. Reduce watering in the winter.