



Cactus & Succulents

Growing cacti and other succulent plants can be an addictive pastime. Cacti are among the most unique and fascinating types of indoor plants. Besides being easy to grow, thrifty on water, and eye pleasing, cacti have another advantage; they are fun to have around. Some people grow cacti outside in pots during the growing season, and then bring their cactus indoors during the winter.

Cacti make perfect house plants; they thrive on neglect. In addition, the typical hot and dry conditions that usually kill house plants, are perfect conditions to grow cacti. Many cacti and succulents are extremely well adapted to living in houses where the relative humidity is low (10-30 percent). Although most cacti are adapted to dry conditions, it doesn't mean they don't like water; they have very specific needs. Cacti require some special attention and care.



Soil

Cacti generally grow in rocky or sandy soil conditions. They must get a drink, and then dry out. It is when the soil stays wet for a long time that the plant's roots start to rot. For this reason cacti need a soil that drains well, and dries out quickly. There are several pre-mixed cactus soils, such as **Black Gold Cactus Mix**, that are good for both cacti and succulents.



Regular house plant soil can be used if you add about **1/3 coarse sand**. Avoid soils that contain a lot of peat moss. When peat moss dries thoroughly (as the cactus soil should during the winter) it is hard to re-wet, and must be soaked to absorb water, which is harmful to your cactus plant.

Most house plant soils are slightly acid. Cacti prefer a slightly alkaline soil. Add a little agricultural limestone to the potting soil to correct this pH problem. Check the soil as you open it and add any necessary amendments before you plant your cacti in that soil.

Water

Cacti are not opposed to water, in fact they thrive on it. During the growing season, April through October, cacti need to be watered consistently. If you only water your cactus plants once a month, you will not see much new growth. They will just maintain life. Also, roots kept too dry, too long, will burn and die, so when you do water the plants, the roots will not be able to absorb any water. Your plants will start to rot at the base and die.



A cactus plant in a small pot requires watering more frequently than a cactus in a large container. A cactus in a three or four inch pot may need watering every three to five days, while a plant in a six inch pot may only need water about once a week. A cactus plant in a twelve to fourteen inch pot may only need water every three to four weeks.

Your watering schedule should be determined by your soil mixture, the type and size of pot (plastic and ceramic pots hold water longer than clay pots) and by the temperature. If it's hot, your plant will need watering more often than in cool

weather. It is almost impossible to predict exactly how often to water your plant. **A good rule of thumb is to water your plant before the soil becomes bone dry.** A moisture meter can be very helpful when trying to decide when your cactus plant needs watering.

You can either water the soil from the top, or you can set the pot in water, and let it soak from the bottom. Only set the pot in water for ten to fifteen minutes, do not let cacti stand in water for long periods of time. The best procedure is to alternate watering between the top and the bottom. Don't sprinkle or mist cacti, they don't need it.

Water plants regularly during the growing season (April to October). Don't water very often during the plant's dormant season (October to April). Cacti are not actively growing during this dormant time, and are susceptible to root rot. During the dormant period just water them lightly every few weeks, after the soil has thoroughly dried. Apply just enough water to moisten the roots and to keep the plants from shriveling. You do not have to water all the soil in the pot, just the soil around the roots.

Light

The amount of light is one of the most important factors in the growth of cacti. The majority of cacti grow in full sunlight, but there are some varieties that prefer semi-shaded conditions.

In the wild, you will find cacti growing out in the open, under bushes and rocks, or hiding in tall grasses. Cacti will sunburn if they are moved from a shaded condition into direct sunlight without a period of adjustment. When you move a plant, or when you purchase a new plant, and put it in a sunny window, watch it carefully for the first few weeks. If you see the side facing the sun discolor, or become a lighter color, move it out of the window. A cactus will also sunburn if the soil becomes bone dry.

If cacti are growing in too much shade they will grow deformed and spindly. You may notice the tops becoming soft and skinny. They may also go bald on top. If you



notice these problems, move your plants to a more sunny location.

South facing windows provide the most light. East or West windows, as long as they receive direct sun, provide the next best light. North windows are the dimmest. Your own judgement is the best indicator of whether your plant is receiving sufficient light. Most cacti should be within three feet of a south, east, or west window. If this is not possible you may need to use a "**Grow Light**" to supplement the needed light. Many cacti will flourish under grow lights.



Winter

During the cold winter months, cacti like to rest. They must go dormant if you want them to bloom the next spring and summer. Several conditions tell your cacti it's time to rest. First is shorter days and second is cooler temperatures. The ideal winter temperature for cacti is about 45° to 55° F.

A windowsill closed off by a curtain, or in an unheated room, may provide the ideal winter conditions. Cacti need less water during the winter, a little every two or three weeks depending on the pot size. The object is to give your plants just enough water to keep their roots viable. Too much water during the winter will make the cactus rot.

Fertilizer

Cacti do not live on light and water alone. Cacti like food. It helps them maintain good health, color, shape, and it keeps them growing. Cacti like fertilizers with a high phosphorous content. Too much nitrogen will cause deformed growth.

Fertilize your cacti once a month during the growing season with **Bonide Liquid Plant Food** or with **Grow More All Purpose Fertilizer**.

Do not fertilize during the dormant season. Do not fertilize sick or newly potted cacti. Give these plants at least a month to adjust and recover before you fertilize them. It is usually better to *under-fertilize* than to *over-fertilize* cacti. Always water your plants with plain water about a half hour before you fertilize them. Don't fertilize plants that have bone-dry soil, or you may burn the roots with the fertilizer.

Repotting

Cacti and succulents can be repotted at any time of the year, though spring, or the end of the growing season, are convenient times.

Many people repot their plants too often, needlessly disturbing the roots, when just increasing the fertilizing frequency would have worked just as well. Repot cacti when the plant needs it, not on a regular schedule. A cactus can grow for many years (up to five to ten years) in the same pot before it needs to be repotted, so don't be too anxious.

Large specimens do not need regular repotting. Simply remove about 1 inch of soil from the top and replace with fresh cactus soil.

If the plant has been in the same soil for a long time, crumble away a little of it from the base and around the sides of the root-ball. But be careful to minimize damage to the roots. Just



shake off loose compost.

For smaller plants, choose a pot just slightly larger than the diameter of the cactus plant, be careful not to choose too big of a pot.

Cacti will grow in any type of container, as long as it drains well. Traditionally, untreated, shallow clay pots have been the recommended pots. However, plastic or decorative pots work just as well, if you water them carefully.

If possible, choose a soil mix formulated for cacti, as this will be well drained and have the right sort of structure and nutrient level. We highly recommend you use **Black Gold Cactus Mix**.

Many succulents present no special handling problems, but prickly cacti have to be treated with respect. To handle a prickly cactus, fold a strip of newspaper, thick paper, or thin card to make a flexible band that you can wrap around the plant to hold it. Tap the pot on a hard surface to loosen the root-ball. You can then often lift the plant out with the improvised handle. If it refuses to move, try pushing a pencil through the drainage hole to break the bond.

Do not water newly planted cacti immediately; wait several days to allow time for any damaged roots to heal before watering. Water sparingly for the first three weeks.

Do not fertilize newly potted cactus for at least a week or two. Let them settle into the soil before adding fertilizer.

Check your watering and fertilizing procedures before and after repotting, you may have to adjust your methods a little.

Flowering

Many cacti are grown for their flowers, others for their spines and form. Flowering varies with varieties. Some varieties only bloom when they are very old, while some varieties bloom only when they are young. If your cacti doesn't bloom, there could be one of several reasons.

1. They did not grow well the previous year.
2. They are too shaded or too cool.
3. They are receiving too much nitrogen.
4. They are too young, or too old.
5. They are not receiving the proper dormant period.
6. They did not receive the proper periods of light and dark, to trigger their flowers.

Insects

Cacti are relatively free of insects and diseases. Most problems are usually caused by poor growing conditions, such as insufficient lighting or by over-watering. Some insects and diseases may appear and their treatment is important. Mealybugs and aphids are two of the common cactus pests. Root rot is the most common cactus disease.

Christmas Cactus

Not all cacti are desert plants. Some cacti (such as the Christmas Cactus) grow in tropical rain forests. Other cacti grow better in shade than in sun. No matter what your tastes are, cacti have the diversity and adaptability to suit your life style. A small investment of time and money will reward you with enjoyment for many years to come.

