

Growing Cacti in the Northwest

By Karen Palmer

You have probably already enjoyed a Christmas cactus, *Schlumbergera bridgesii*, in your home. Perhaps you have a few other small cacti, such as a *Mammillaria*, sitting in a sunny window. Did you ever wish you lived in the southwest so that you could have larger and more types of cacti? Don't call the moving van yet – you can grow many types of cacti in the northwest with just a little bit of special care.

What are Cacti?

The cactus family, Cactaceae, is one of the largest families of succulents in the world. There are roughly 10,000 species of succulents. The cactus family contains about 2,500 species, or one quarter of the succulent plant species. Some common examples of succulents that are not part of the cactus family are agave, aloe, euphorbia, sedum, and yucca.

Plants that are adapted to dry desert conditions are known as xerophytes. Succulents are **xerophytes** that have developed water storage structures which enables them to survive drought conditions. These storage structures may be in the leaves, stems, or the roots of the plant. Cacti are stem succulents, in that they store water in their stems.

Common characteristics of a cactus are ribbing, spines, and a waxy skin. The ribbed stems allow the cactus to swell and shrink without splitting, as moisture becomes available. The spines on cacti are modified leaves. They protect the plant from predators (including man), provide shade, impede air circulation to retain moisture, and provide insulation against cold weather. The waxy skin of a cactus reduces moisture loss and provides protection from insects.

A botanist could unequivocally identify a plant as belonging to the cactus family by observing its flower. The flower would have more than ten petals, sepals that intergrade into one another, hundreds of stamens, a two- to multi-lobed stigma, and an ovary enveloped in stem tissue. Most cacti propagate in the wild by seed dispersal. Seeds are often wind-blown or dispersed by birds, bats, or small mammals. Some types of jointed cacti, such as *Opuntia*, propagate when mammals or wind knock off a jointed section of the plant. This section will then grow new roots and become a new plant.



Trichocereus huascha



Cereus peruvianus monstrose

Growing Conditions

In general, our northwest climate is too cold and wet during the winter months for most cacti. Therefore, it is best to plant them in pots, which allows you to take them outdoors during the summer and then bring them indoors during the winter. Cacti are susceptible to fungal diseases when it is both cold and wet. This is different from other plants in our area, which are susceptible to fungal diseases when it is warm and wet. Even in nurseries in Arizona, fungal diseases can be a problem when both of these conditions occur at once. If you do decide to try growing cacti outside year-round, first create a dry sand bed by spreading 6–10 inches of sand over a well-draining area of your garden. Then select a species that is suited for our zone (USDA zone 8) and provide extra protection during a particularly harsh winter (and don't be surprised if you have to buy a new cactus).

As an experiment, I left both a *Stetsonia* and a *Cereus peruvianus monstrose* outside in a protected area over one winter. The *Stetsonia* suffered serious stem end rot, while the *Cereus peruvianus monstrose* fared well. After that experiment, I decided that all my cacti would be houseplants during the winter. I line them up inside sunny windows and practically ignore them until spring.

After several years, the *Stetsonia* has now recovered and is showing new growth even on the stems which had rotted. This is one of the best features of cacti – if the conditions upsetting them are corrected soon enough, they are likely to recover.

As you move your cacti outdoors, be careful not to move them into direct sunlight immediately. Although these are desert plants, some will sunburn very easily, especially when they have been indoors for six months. While a little sunburn is usually not fatal to a cactus, it does destroy their appearance and it opens the door for disease and insects. It is also a good idea to move them indoors gradually in the fall.

Potting a Cactus

The soil in which you pot your cactus is very important. Cacti do not like wet feet so they require a soil mix that provides good aeration and drainage. The primary components in cactus soil mix are generally coarse sand and potting soil. Other additives, such as peat moss, pumice, perlite, or crushed rock can also be used. There are bagged commercial mixes available and they seem to work fairly well. In many cases, since cacti grow slowly, you can get away with leaving the plant in the nursery container for several years. Simply slip it inside a decorative pot and make sure that no water accumulates in the bottom.

At some point, however, you may need to repot your cactus because either it has outgrown the pot or the soil needs replacing. The type of pot you use (plastic or clay) is a matter of personal preference. However, most cacti are shallow rooted so a shallow pot is better since it allows less room for excess water to accumulate. The pot should always have drainage holes in the bottom. If the cactus is large, potting can be a daunting, but not impossible, task. First, make sure you have a pair of heavy leather gloves to protect your hands. Fill the new pot with your cactus potting mix just to the level where the rootball of the cactus will need to rest. Gently remove the cactus from the old pot and slightly loosen the rootball if necessary, but be careful not to damage the roots. Look

for signs of insects, especially root mealy bugs, in the soil. If insects are present, wash off as much soil as you can from around the roots. Place the cactus at the correct level in the new pot and fill with the cactus soil mix. Always plant a cactus at the same level in the soil. In addition to your gloves, consider using a strip of carpet or foam while handling the cactus. This will keep small spines out of your gloves (making them forever useless) and will also cause less damage to the cactus. **After potting, do not water the cactus for about 2 weeks to give any broken roots time to heal.**

Routine Maintenance

Cacti need little regular care. Potted cacti do need regular water, but not as much as your other houseplants. For instance, I water my cacti lightly about every 3-4 weeks during the winter while they are dormant, and then increase to twice a month during the spring, and once a week while they are outside in the summer. Spring and summer are their active growing periods and they will use more water than. Never leave a cactus standing in water, and allow the soil to dry between watering. Potted cacti will also need some light fertilizing during the growing season, about every two months. A low nitrogen fertilizer, such as 5-10-10 can be used or there are special liquid cactus fertilizers on the market.



Opuntia microdasys and
Opuntia microdasys undulata

One of the problems associated with a spiny plant is that dust and cobwebs accumulate easily. Use a soft brush to gently remove the debris. I have also found that very carefully vacuuming with a soft brush attachment helps remove some of the cobwebs. Whenever handling your cactus, be careful not to touch the surface too much. Cacti bruise very easily and bruised areas introduce an opening for disease. Also, every time you break off a spine by handling, you open a wound on the plant. This creates a prime target for insects and disease. So in general, the less handling, the better.

A cactus can be invaded by small insects such as aphids, mealy bugs, root mealy bugs, spider mites, thrips, or whiteflies. If you have these pests on plants near the cactus, watch closely for them and treat as necessary. The most harmful disease in a cactus is basal or root rot. This is a fungal disease that attacks the base or roots of the plant. Since it is most likely in the soil, it is hard to combat with fungicides. Therefore, the best treatment is prevention, by using a well-draining soil mix and watering carefully. **Never allow water to accumulate under the cactus.**

Recommendations

So now you have decided to try growing a cactus for yourself. They come in all different shapes and sizes so you can choose what works best for you. Here are a few I have enjoyed and found fairly easy to grow.

Opuntia microdasys "Prickly Pear"

Opuntia macrocentra "Purple Prickly Pear"

Opuntia microdasys undulata

The *Opuntia* genus has a large number of species. They all generally have a jointed growth habit. Be careful when asking for one of these since the "cholla" is also in this genus and some of those can be perilous to be around, especially the "jumping cholla".

Echinocactus grusonii "Golden Barrel"

Cereus peruvianus monstrose (also sold as *Cereus hilmannianus monstrose*)

Stetsonia coryne "Argentinian Toothpick"

Trichocereus huascha

Ferocactus latispinus

Ferocactus pringlii "Fire Barrel"



Ferocactus pringlii 'Fire Barrel' and
Ferocactus latispinus

Another trick we have learned around our house is to name our cacti. For some reason, these long Latin names don't just roll off the tongue, and most varieties do not have common names. It is difficult to announce that the *Trichocereus huascha* bloomed last night before you even have a cup of coffee! So in our house, we have Knarly, Spike, Fats, Prickly, and so forth. This adds a little more fun to your cactus adventures.

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