

Turn of the Seasons

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Only a few cacti grow strongly during our long, hot summer. These include *Coryphantha*, *Gymnocalycium*, *Matucana*, *Opuntia*, *Turbincarpus*, and columnars. I water these cacti regularly all summer, trying not to let them dry completely for long. South American columnar cacti in particular make impressive growth if kept moist all summer and not allowed to dry out. Examples include *Borzicactus*, *Cereus*, *Cleistocactus*, *Haageocereus*, *Harrisia*, *Neocardenasia*, *Pilosocereus*, and the vining *Selenicereus*. I think it might be possible to stand these columnars in a saucer of water all summer without trouble.

Most other cacti stop growing in the heat, and are at risk of rot with too much water. This means they need to dry out between waterings, but they do not like baking dry in the heat for any length of time. It is possible to move Phoenix summer-dormant cacti such as *Rebutia* to the dry shade, where they will do better than in the sun.

Among mesembs I have grown, *Dinteranthus*, *Lithops*, *Odontophorus*, *Plieospilos*, *Rhombophyllum*, *Ruschia*, and *Schwantesia* need regular summer watering. My *Rhombophyllum dolabriforme* is in constant bloom from April to December. Other mesembs are touchy about experiencing heat and water together.

Summer sleepers resume enthusiastic growth for our long fall when nights start cooling. This time of year can be a little tricky for growers; watering too much too soon risks rot if growth has not begun in earnest and watering too little too late forgoes lots of potential growth. The combination of cool nights and warm to hot days is the best for most succulent plants; try to take advantage of this weather.

Our summer breaks with a few cool nights in a row sometime during August or September. Rarely, this is actually the beginning of fall--but not every year. It is very tempting to water winter growers such as most mesembs during this break and try for a head start. But, this is a big risk; most years, with another few weeks of hot weather are on the way, and a wet winter grower in hot weather is at high risk of rotting. Try not to soak your winter growers during this cool spell in August or September. You can give them a splash of water, just wetting the surface. They will absorb this during the few cooler nights and be primed to grow when nights reliably cool down for the winter later in September. Most of them are smart enough not to begin growing until they know it's the right time. Plants in this group include *Argyroderma*, *Cheiridopsis*, *Mitrophyllum*, *Monilaria*, and most winter-growing bulbs.

Cacti and "summer-growing" mesembs that have been sleeping off the heat with dry soil are already waking up as I write this in early September. I put "summer-growing" in parentheses because, while these plants do grow in the summer in habitat where it is not as hot as here, most are unable to use water in our heat and they will rot if kept too moist. They don't seem to mind moderate nights and days around 100; it's the steady days of 106+ and nights in the upper 80s that get them. I do soak all my cacti and most

"summer-growing" mesembs during the August-September cool nights and they begin growing for the fall. Cacti in this group include Copiapoa, lots of Mammillaria, and Notocactus. Mesembs in this group include Aloinopsis, Carruanthus and Nananthus.

One group of Mammillaria has a definite need for a winter dry spell. These plants are generally small with tight soft spines, large purple or pink flowers, often tuberous roots. They are highly prized by collectors. Species include *M. hernandezii* and *M. theresae*. These plants grow in shallow soil pans on rocks. They see lots of rain between May and October, and none at all in the winter. Even a drop or two of water on these plants during the winter may kill the entire plant. They shrivel terribly but will recover rapidly with spring watering. *M. hernandezii* blooms before growth resumes, and it should not be watered in the spring until after it has bloomed, no matter how bad it looks. Its huge tuberous root contains over a year's water. *M. theresae* blooms on and off all summer but needs a dryish rest during hellishly hot periods. From the time days begin to cool in late October, put these plants where they are at no risk of being watered.

Lobivia (Chamaecereus) *silvestrii* (the peanut cactus) will bloom better next spring if it receives a long, dry winter rest as well. It is hardy to single digits if dry.

If you have a warm greenhouse or sunroom, your South American columnar cacti such as *Pilosocereus* should go there for the winter. They can't take cold weather but will grow all year if warm enough and watered. Be sure you have enough light to prevent spindly growth. If you don't have a warm, sunny spot for them, keep them dry and warm so they don't grow.