

Dormancy in Certain Western United States Cacti

By Elton Roberts

Besides cactus being sensitive to watering at different temperatures there are also those that are sensitive to being watered at the wrong time of the year. This may sound strange but some plants in the western United States are very sensitive to being watered at the wrong time of the year. These states are parts of California, most of Arizona, all of Nevada, western Utah, much of New Mexico western Texas, southern Oregon, parts of southern Idaho, south western Wyoming and much of western Colorado. Maybe the pan handle of Oklahoma could be added also. So if you drew an out of round circle start at the southern border of California and follow the U.S./ Mexican border southeast to about the east side of the Big Bend of Texas. Circle a bit northeast and take in the pan handle of Oklahoma continue north and take in the very west of Kansas and into Nebraska and take in at least the bottom half of Wyoming, southern Idaho nick southeastern Oregon and come down the Nevada/ California border and come down where the border goes straight southeast to about middle of that stretch. Then go from there back to the starting line. That should take in southeastern California in the circle.

In that irregular circle grow quite a few notorious hard to grow cactus plants. Also in that area are plants that are quite forgiving for what we do for them. Plants that are not so forgiving are Mammillaria tetrancistra, Pediocactus, Sclerocactus, Echinomastus, Micropuntia and the occasional Echinocereus I may have missed some but you get the idea. In the western part of this area it is notorious for no rain or very little rain from about April 15 till about end of June and many times to the end of July. That is when the monsoon rains come up from the Gulf of California and northern Mexico. This year [2013] the rains came on time and from my place I have been able to see the thunderstorms build up over western Nevada. On the news it showed flooding in Phoenix Az. They were having to rescue people caught in the flood waters. It is during these monsoon rains that roads, bridges, houses, cars and people can be washed away. It is not a time to mess around in low areas or arroyos. I have seen cars washed off roads and when found a long time later they are just a roll of metal about 2 feet in diameter. Many times these flash floods hit without warning. It may be sunny where you are but that storm ten miles away will do a lot of damage coming down that arroyo and take you and your car with it.

What I am getting at is that many plants growing in this area may get a little rain or they may almost drown. It is when these rains come that the plants come out of dormancy. Backing up; it is at the end of the winter rains when the plants in this area go dormant. Some may bloom when going into dormancy but they go dormant or if you wish a well-earned rest. Many of the plants in the higher elevations may be hit by end of season snow storms I have seen plants blooming through the snow. I have gotten up in the morning and had my sleeping bag white with frost and the plants are still putting on buds or already have flowers open. The frost does not seem to bother them nor does the snow that I have seen.

Here is more or less a year in the life of the hard to grow plants and most of the cactus in this area. Let's start July first and say that is when the monsoons hit an area of these plants. It rains some, the plants wake and take on water; they fatten up. They take on water as long as there is moisture to take up. From what I have seen the plants keep growing slowly. Come fall they prepare for the next years flowering time. They make buds; some of these show through at the

top of the areole. I think others are just inside the plant. [Many times I have watched these buds sit over the cold winter; come longer days the plant starts growing the buds again. If there is a warm time in my greenhouses sometimes some of the plants will open flowers in early to mid-winter.] When days get longer and sometimes warmer the plants start growing the buds again. This time usually to full size and they open the flowers but if really cold weather hits again they stop growing or the growing of buds slows. The pollinators find the flowers and the plants set seed and make seed pods. These grow quite fast for dormant time it coming quite fast. Sometimes it hits mid to end of March other times it will hit after the end of April. The plant is dormant till the rains come again. In that time the plant starts shrinking a little and seeds are stolen mainly by birds, mice or ants. If the next rains are late the plant will shrink quite a bit. In southern California in the Anza Borrego Desert there had been a long drought. Dotted around all over were dead clumps of different kinds of cactus.

The plants that get that first rain come out of dormancy and start to take on water. As the rains head north other plants get the rains also and come to life. In this time seed will germinate as the soil is wet. The plants replace the moisture they lost during the dry time. In habitat many plants will not bloom again but I have seen *Mammillaria tetrancistra* bloom after the rains. This is one reason that they do not cross with other *Mammillaria* like *M. dioica* where the plants can grow side by side. *M. dioica* blooms in early spring *M. tetrancistra* blooms later on usually in the heat of summer. The plants that have pulled down into the ground now take on water and stick their heads up and fatten up. As it gets into fall and before it gets really cold then many of the plants prepare themselves for the spring bloom. I have told people many times that that this is the time to feed their plants. Many people say that one should stop watering in mid-September so the plants can hunker down for the winter. I have watched many plants make buds that just show out of the plant during this time. I live in the northern San Joaquin Valley, in land from San Francisco. Here it can get really cold so the plants go winter dormant in mid-October. But most of the time the first frosts will hit just before Thanksgiving or a week or two after Thanksgiving. I will water the plants lightly up till that first frost. That way they have what they need to set those buds. Before any really cold weather the plants still breathe and so have time to hunker down before freezing weather hits. Many people say that their plants do not bloom or not very well. Some say that the plant has not bloomed till mid-June but my plant bloomed at the end of April. When questioned I find that they put their pants to bed sometime in mid-September. [Putting the plants to bed in mid-September was taught in the cactus clubs when I first joined 30 years ago.] The plants did not have a chance to make the buds in the fall like many do. When really cold weather sets in the plants go dormant. They stay that way from about the first of December till the days get longer and there is more daylight; I have seen them growing in the middle to end of February. Most plants in this area wake while there are still frosty nights. And like I said they can many times even get several late winter snows. When the plants wake they put most of their energy into growing the buds and opening flowers. Depending on the species and the elevation some of the plants start blooming in March and others at high elevations maybe not till June. They will then take a rest while the seed pods form and ripen. They will rest or be dormant till the monsoons hit their area again.

I have seen the monsoons not hit till the end of August. If that is so the plants there will not come out of being dormant till the rains hit. I have seen years when the rains start in Arizona and Southern California and take several months to move far enough to hit north central Nevada. This year the rains were a bit early and a large portion of the area has been hit with very hard

rains and many areas have flooded. If the rains do not come till say mid-August then the plants have to really scramble to take on water and prepare themselves to start bud making for the spring flowering season. I have also seen the monsoons last till the middle of October so putting the plants to bed in September is kind of silly unless you live where winter sets in in September or October.

If any of you have tried to grow *Pediocactus*, *Sclerocactus* and some of the other plants considered hard plants to grow you have in the most part found the plants are easy to kill, especially *Echinomastus johnsonii* and its variety. I have several *Pediocactus*, *Echinomastus* and *Sclerocactus* along with *Mammillaria tetrancistra*.* I have also killed some of the same by watering during the time I set as do not water these from April 15 to July 1st. If I remember that these plants want that dormant time I can grow them bloom them and they are happy. I have to tell myself to just remember not to water them in this time period!!!!

*I add *M. tetrancistra* for it is very easy to kill it with one watering at the wrong time. You water and it blows you a kiss as it bends over, rotting at the bottom. Once that happens it is not easy to get it to grow roots again. I have discovered that if I use mineral soil it will root again much sooner than using humus soil. Humus soil is potting mix.