CACTUS and SUCCULENT SOCIETY of NEW MEXICO

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(The following was taken from the article "The Culture of Cacti and Other Succulents" by Glass and Foster, which was published in the *Cactus & Succulent Journal* in 1975.)

PLANT CULTURE

Most annoying of the myths that surround cacti and other succulents is the old saw, "They thrive on neglect." Our answer is that they *exist* with neglect, but that they *thrive* on tender loving care! While it is true that too generous treatment can kill off a succulent that might have survived for years with virtually no care, to grow beautiful plants, one can give far more generous treatment than is generally assumed. We can give you here a few basic rules, but the only way to learn about your plants is to observe them and their responses closely and to be a bit daring and experiment.

Those who have collected for some time have their own potting mix, and they generally are convinced that the use of anyone else's would kill off their plants. It is true that for those who water less frequently, a heavier, more water-retentive mixture is perhaps preferable, whereas those who water often and heavily or who use plastic rather than clay pots need a looser, coarser, better draining mixture. A general basic mix with which to start would be equal parts of sand, fine gravel or pumice, leaf mold or some similar plant mix, and a loose, sandy-loam topsoil. We use a soilless mixture of just sand and planter mix, but that means that we have to fertilize regularly and more often. (Note: In Albuquerque, a good general mix is 1 to 2 parts clean sand, 1 part potting soil, and 1/20 part bone meal. Another mix is 6 parts sandy loam, 1 part pumice or perlite.)

We also water very heavily, soaking the container two or three times at a go, on the theory that the soil cannot be partially wet, but that a little water merely soaks the top layer of soil, encouraging weak surface roots, and that this technique builds up harmful salts in the mix that never get "leached out." We've seen others get beautiful results with far different care, but we're happy with our system, for us, under our conditions, with our soil mix, our climate, our water, and our watering and feeding schedules. Experience and experiments will lead you to a system that works for you. The main rule with succulents is that during the growing period, they want water, but do not want to be kept sopping wet, so use a mix that drains fairly rapidly and allows a slight drying out between waterings.

There are many other factors that affect culture, and with each there are various pros and cons. Some like plastic pots, which take up less space, and which, being less porous, retain moisture longer. They are also less expensive. Others swear by clay pots, which allow the grower more control if he has time to devote to his collection; still others prefer the elegant and expensive bonsai pots which; however, are not very porous, but react more like plastic in this respect. As to those who use tin cans, styrofoam cups, or plastic dishes, we're not even going to refer to them! We would rather see a common plant that is well grown, obviously cared for, and neatly and attractively potted (or "staged") than the rarest of succulents in poor condition and stuck in some old tin can.

Another controversial factor is the use of top-dressing on the soil in the container. Top-dressings, such as small pebbles or coarse gravel, offer quicker water penetration, slower water evaporation, elimination of a crust on the top of the soil, and what is generally considered a neater, more attractive appearance; those opposed to or afraid of top-dressings claim that they make it more difficult to tell when the plant needs water. We feel that experience and the plant's appearance tell you when the plant needs water, but if you don't use a top dressing, at least keep the surface of your mix neat, clean, level, and crust-free by "raking" or combing it occasionally.

Most books on culture of succulents tell you not to feed succulents, not to water after repotting, and various other rules that the authors themselves break regularly. Rules are made for those who don't know enough to know when to break them, and don't forget that such general rules have to apply equally to all

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sorts of conditions and climates. In the hot, dry atmosphere of southern California, for instance, we can get away with techniques that might be sure death for a plant growing in a window or a glasshouse in the northeast. If you're growing a cactus in poor light in a north-facing window in New York, you certainly don't want to give it as much food or water as you would if it were growing on a bench in southern California or Arizona!

But the main indication should be the appearance of your plants. If your plants are yellow, skinny, or pinheaded and refuse to grow, you're doing something wrong. If it's growing in the shade, chances are, then, that it needs more light; if it's growing in the full sun and looks that way, then it probably needs more shade. Maybe it hasn't got any roots anymore; take it out of the soil and check! You'll learn something about your plant in the process.

We are constantly begged by newer subscribers to our journal for more cultural information along with the plants that are discussed in the magazine. The beginning collector cherishes the belief that for each plant, there is a specific set of rules which, if followed, will lead to successful cultivation of that particular species. In reality, it is neither that easy nor that difficult. There is good, general culture that is equally applicable to perhaps 90% of the succulents; for the other 10%, there is some minor variant to fill the plant's specific needs. We find it wastefully repetitious continually to be advising "good drainage, generous but infrequent watering, regular feeding, light and fresh air," yet for the majority of our plants, this is all that needs and can be said. The proper proportions of the above elements is a sense that one develops through reasonable, intelligent, loving care of one's plants, and observation of how the plants respond to that care. Some types need a seasonal resting period; others need more shade or some specific element not essential to other species; when this is the case, this information should be given, but these are the exceptions. The basic principles of good culture apply to all plants.