

## Asclepiads in Arizona: Huernia and Stapelia

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Asclepiad is the nickname for plants in the milkweed family, formerly called *Asclepiadaceae*. The family got its name from Asklepios, son of the god Apollo and a mortal mother. Apollo taught his son all his medical knowledge, including how to use a plant now known as asclepias. Asklepios brought a dead person back to life; Hades, god of the underworld, complained to Zeus about this, and Zeus killed Asklepios with a thunderbolt. Apollo resurrected his son and made him a god. Asklepios' symbol is a rough wooden staff around which a single serpent twines. This has become the symbol of the medical profession. The story of why a wooden staff with a twined serpent is left for another time....

Huernia and stapelia are genera that used to be in family *Asclepiadaceae*. Botanists have decided there are not many differences between *Asclepiadaceae* and the dogbane family, *Apocynaceae*, which includes the oleander (nerium), pachypodium and adenium. So, botanists have merged the two families. Since *Apocynaceae* is the older family, that is what they are all called now. Hobbyists call milkweeds by the old nicknames ascleps or asclepiads. Huernia and stapelia are closely related. Hobbyists use the term staps for plants resembling stapelia. Now that you know the jargon, you can grow them, too.

Cultivating exotic plants in the lower Sonoran Desert is limited by summer heat, winter cold, and possibly rain at the wrong time of year. Fortunately, most asclepiads don't mind our summer heat at all, and winter is usually tolerable under a patio overhang or against the house under the eaves. Best growth is during the spring, fall, and early winter, when days are warm and nights are cool. During the hot summer, some like to keep growing and others sleep. In the winter, we have choices: bring them indoors to continue growing, and risk mealy bugs or, leave them outside, moved out of frost's reach, and miss some growth. Most asclepiads need to be under cover from rain here during the winter or they will rot in the cool wetness.

The chief problem with growing ascleps is the mealy bug. When an asclep isn't growing well during the appropriate season, you can be sure it has mealy bugs, even if you can't see them. Mealy bugs aren't much of a problem outdoors here. They don't seem to like summer heat, and it must be too cold in the winter for much activity. But ascleps inside the house or greenhouse are highly susceptible to mealy bugs. Often the first sign of infestation is the sudden collapse into a pile of mush.

I used to depend on regular alcohol spraying and twice-yearly treatment of all my ascleps with Orthene. Now we have much safer and more effective insecticides. I incorporate the semi-synthetic nicotine insecticide imidacloprid into the soil of all my ascleps. It's sold as Bayer grub granules. I mix about a teaspoon into the soil of each pot every time I repot. This does the trick. Sue Hakala has a pesticide-free growing method to prevent mealy bugs. She puts a substantial layer of rock over her soil and sets the cuttings on the rock. They root through the rock into the soil, and the air circulation at the base of the plant is not to the mealy bug's liking. I plan on trying her method.

I assume all plants I buy are infested with mealy bugs. I always unpot all new plants, remove and discard all the old soil, spray with rubbing alcohol, and repot with fresh soil containing imidacloprid.

Spider mite is possible indoors during the winter when heat is used. Or look for them during spring and fall when it's warm and dry, but they rarely appear outdoors. There are small introduced slugs that threaten from time to time when asclepiads are grown near outdoor beds.

Watering is a problem here. Clay pots and porous mixes dry out too fast here for asclepiads, unless one has time to water daily or even twice daily. Plastic or glazed pots require less watering, and my soil mixes contain substantial amounts of fine mineral material (sand or silt), the better to retain water. My aim is a plant in a pot drying out at such a rate that it requires water about once weekly during active growth. I used to struggle to keep pots from drying out too soon. I've been experimenting with differently-shaped pots and soil mixes, and believe most asclepiads here do better for me in medium to deep non-porous pots (with drainage holes) and soil mixes with some organic component but lots of sand or silt as well. This way I water about once a week. In shallower pots or with looser mixes I would need to water more often, and I don't have time for that. Most staps do very well as hanging baskets, but because they grow so fast, be sure the support is sturdy.

My local soil is fine decomposed granitic material, which works very well. There is a dry wash adjacent to my property from which I can dig and screen any size particle I want. I prefer the dust-like fines for my asclepiads, to be mixed with commercially available potting soil about 4 parts granite to 1 part potting soil. If you tend to over water your plants, you might want to use a more porous soil mix. Remember these plants in habitat grow in the leaf litter at the base of shrubs and trees, and are accustomed to much more organic matter in the soil than are most succulents.

Staps grow here like weeds. I fell in love with the giant stinking starfish *Stapelia gigantea* as a child, and grew several in California during high school and while attending the university. I moved to Arizona for more schooling. One day I saw a yard sale with lots of plants. As would any plant predator, I investigated, and bought a plant I knew had to be related to my staps. It had long stems branching freely from the base, many little points arranged into ribs, and little maroon bell-shaped flowers at the base. It was growing in sand in an aluminum drinking glass without a drain hole. It's *Huernia keniensis*, and it grows uncontrollably here. Pieces break off and sneak into flower beds, neighboring plants' pots, and the darkness under shrubs; I find them months later, having formed sizable clumps. It tolerates our winters outdoors unprotected. None of my friends wants cuttings of this plant any more. I suspect it would root in water on my windowsill.

Next was *H. primulina*. It increases fast and blooms profusely both in a sunny window and outside. I have unknowingly lost the plant in tall weeds and forgotten about it for

months, to find it later looking fine. It set seed last fall for the first time. It is sensitive to over watering during heat.

The lifesaver plant, *H. confusa*, is almost as easy. It will rot during the high heat if watered too much. But, interestingly, it usually demarcates the rot and healthy stems can be separated to reroot. Quite a few staps do this, for which we are grateful.

Then I entered the stage of buying every huernia and stapelia I saw. I deliberately avoided mail-order because I knew there were already too many for me to handle, and they all come with mealy bugs. Huernias do have the drawback of mostly lacking the foul floral smells of their cousins, but the plants grow and bloom beautifully in relatively small pots, and they grow easily.

Huernia and stapelia generally tolerate our full sun, looking very purple and growing very compactly and slowly, but not blooming much at all. Since seeing habitat slides presented by Sheila Collenette at the 1997 CSSA Convention, I have grown them shaded by other plants. Remember, these plants grow under trees and shrubs in habitat, where it's quite shady. Arizona sun is very intense. My plants are green not red, grow fast, and bloom freely. Later I heard Sheila give a tongue lashing to a well-known botanical garden cactus curator about the sorry state of his staps grown in too much light.

My typical stap year:

February: Move those wintered indoors from the sunroom to the covered patio. Begin regular soaking and fertilizing. (I use ammonium sulfate, 1 tablespoon per gallon of water, about once monthly because it's cheap and it works.) Days are warm, nights cool. Plants are never allowed to dry completely. Rapid growth begins, and many begin flowering.

Late April: Cut back on watering in preparation for heat. Plants become almost dry between watering.

Late May, or when nights are above 25C / 78 F: Cut back watering more, let dry between watering. Be careful when examining plants not to set them down in the sun or they will burn.

Early July: Watch the weather forecast. Don't water the day before rain is expected or they might stay damp too long and rot.

Mid September, or when nights are cooling down: Resume heavy watering, keep plants moist.

Early December: Move into sunroom. Or, leave outside protected from rain but dry. Inspect indoor plants for mealy bugs regularly. Keep indoor plants moist during periods of sunshine and dry weather; let dry during cloudy and rainy periods. Don't fertilize in the winter. Expect flowering during the sunroom period.

During the winter, if I find mealy bugs at all, I spray with rubbing alcohol. I take some cuttings and leave them unpotted on the bench until the spring in case the parent plant dies. Unrooted cuttings are easily viable up to a year! Since I've been using imidacloprid in my soil, I don't have any mealy bug problems.

Plants that routinely set seed for me in California don't here, and some set here that never did in California. I can only ascribe it to a different insect fauna.