

Succulent Cucurbits

Leo A. Martin

The plant family Cucurbitaceae, the cucumber and squash family, has many genera with large caudices. A non-inclusive list of these would hold *Acanthosicyos*, (and anything else with -sicyos in the name), *Cephalopentandra*, *Coccinia*, *Corallocarpus*, *Ctenolepis*, *Cucumis*, *Cucurbita*, *Dendrosicyos*, *Gerrardanthus*, *Ibervillea*, *Kedrostis*, *Marah*, *Momordica*, *Seyrigia*, *Sicyos*, *Trochomeria*, *Xerosicyos*, *Zehneria*, and *Zygosicyos*.

Cucurbits can be recognized by a vining habit, tendrils at the bases of each leaf, and flowers looking like squash blossoms. In most of these genera the flowers are very much smaller than squash, melon or pumpkin flowers. Interestingly, many of these plants are dioecious, meaning each plant bears either male or female flowers and it takes one of each sex to reproduce.

People like to grow these because the caudices can become huge. At our annual show, we have many spectacular examples of these plants: large bulbous trunks with long green vines, some in flower. How to get that seedling or cutting to show size, and, how to propagate them?

Most are very easy from seed. If you've ever grown zucchini, melons or gourds, you are probably already an expert on planting these from seed and growing them the first summer. I bought from Mesa Gardens (www.mesagarden.com) and planted *Kedrostis* and *Momordica*. They formed little caudices before the first summer. I also planted caudiciform *Ipomoea* but that's another article.

In common with squash, they need warmth, lots of water while growing or they will wilt, give them something on which to climb, and plenty of fertilizer. The caudex is normally buried to stay cool while the vines reach into the sun. I would recommend leaving your caudices buried for a few years because they almost stop growing once raised. These plants can't stand being damp while dormant, so you will have to keep them bone dry during the winter or they will rot rapidly.

All cucurbits are warm-season growers, so wait until you can assure soil temperatures above 70 degrees at night to plant seeds. Soak the seeds for two days, changing the water once daily. Then plant them in a large pot or in your vegetable garden next to the squash unless you want small, stunted tubers and poor growth. I wouldn't use anything smaller than 1 gallon per seed; a 5 gallon pot makes a good nursery for up to about 10 seeds the first year. Use rich garden soil. These are not happy if they dry out while in active growth so be sure your soil doesn't dry out too fast. I add Ironite for trace minerals (about 1/4 cup per gallon of soil) and a little long-acting fertilizer (I use ammonium phosphate, about a tablespoon per gallon of soil). Or, fertilize at each watering.

Note that some genera, especially *Coccinia* and *Corallocarpus*, seem to sprout better after several years of storage.

Put the pot in the sun where it will be warm to hot. Then stand back; most will sprout within a few days. Just keep them moist and sunny the first summer. It's okay to fertilize a lot if you want them to grow fast. They will climb all over the place, so provide a trellis, or let them climb into trees or shrubs.

If you bought a plant, it is almost as easy. Chuck Everson of Arid Lands in Tucson recommends unpotting all new plants, removing all soil and roots, then re-rooting. He says there's a lot less rot and pests this way. If you find mealybugs, scale or rot, treat and dry out before attempting to re-root.

Remember that the caudex may not be accustomed to Arizona sun. If you burn that caudex, the plant may die. *Gerrardanthus* is particularly sensitive.

After repotting, put it someplace warm for a week or so, then drench once. Don't water again until new growth is about an inch long. Then treat like your seedlings. If it doesn't grow after the drench, let it get bone dry, let sit for another week, and try again. It will grow eventually. Investing in a moisture meter costs less than \$10 and will save you that much in plants.

Fall will come sooner rather than later. You will notice the vines looking frail and yellowing as days cool. Stop watering! The vines will die back naturally. Now, just cut them off. Once the soil is bone dry, store the pot someplace where it will get good air circulation but no water at all until it warms up in the spring.

That's how easy it is!

Some genera will root from cuttings. I know *Momordica rostrata* does so because I've done it, and the cuttings form caudices indistinguishable from seedlings. Easiest is to layer: In the summer, put a pot with damp soil under a node on a vine and tack it down. In a week or so it will root. I don't know exactly which other genera do this, but why not experiment.