Almost any large, globular cactus can be called a barrel cactus. Then again, some people call even small globular cacti barrels. I’ve heard people in Colorado call a 10 cm-tall sclerocactus a barrel, and even the larger echinocereus are called barrels by some growers. But to most growers the true barrel cacti are members of *Ferocactus* and *Echinocactus*. There are only a few small-growing members of these two genera, but we call them all barrels for convenience. That a few grow rather columnar with age doesn’t really matter, either. In a pot most will remain manageable for decades.

The differences between *Ferocactus* and *Echinocactus* are not entirely obvious to most growers, and yet you can usually tell a *Ferocactus* when you see one. Their thick, ridged spines in bright starburst clusters are one giveaway. And the juveniles have such colorful spines that they can be found for sale in hardware stores. One thing that sets *Echinocactus* apart is that most form a woolly top when they are old enough to bloom. I’ve heard some growers call this woolly crown a cephalium, but this is not technically correct, since the flowering part of the plant doesn’t have more and more-closely spaced ribs and bristles like a true cephalium. In contrast, the areoles on a ferocactus can have short wool, but when a ferocactus throws buds, you can see them; they are not hidden in or covered by dense wool. Echinocactus buds are hidden in wool until they are large enough to emerge from the woolly top of the plant, and even then they keep you guessing, as the buds themselves are also covered in wool. The seed pods of *Echinocactus* are also covered in wool, while the seed pods of *Ferocactus* are naked. In all, the wooliness of the flowering and fruiting parts of *Echinocactus* set its species apart. Backeberg claimed echinocacti also never have hooked spines, like so many cacti do. But I disagree. Both *E. palmeri* and *E. polycephalus* have hooked spines, at least by my definition.

I have had a lot of people ask why their golden barrel has not bloomed, even though it’s 8–10” in diameter. Well, plants have to reach maturity, and for some cacti this can take a while. I have seen golden barrels that were 20 years old and bigger than a basketball and others the same age not much larger than softball. Barrels can be stunted by the container they are grown in, and you can be sure a barrel won’t reach maturity if kept in a 4” pot its whole life. Plants that are never fed won’t grow much either. I’ve had customers report that their golden barrels hardly grew and never bloomed until they started acidifying their water. But once a golden barrel starts to grow that dense woolly top, whether it takes five years or twenty, it is old and large enough to bloom. If you want to see an echinocactus in bloom sooner, try *E. parryi* or *E. horizonthaloni*, which will flower at baseball size.

*Echinocactus* and *Ferocactus* plants come from hot, arid desert areas. I have seen plants growing on top of just a pile of rocks and doing fine, so I provide them with a soil that’s a bit more open and fast-draining than my regular mix. And because in habitat the plant roots spread like spokes on a bike wheel, I try to give mine wide, shallow pots.