Once the seedling is established and the root system is well-developed (about a month), it is ready for its first transplant into a 4" pot. Often seedlings will stretch under lower lights conditions of the prop house, and you can compensate at this stage by burying a portion of the elongated stem, with the added benefit of providing more support for the young seedling.

Operculicarya seedlings have great aesthetic potential in their roots, so give them plenty of room to expand. Bottom heat has proven to be a great stimulant for enhanced root development, and in only two or three years the trunk and upper portions of the roots can be exposed to reveal their surprising development. But consider that the purpose of those fat roots is not just for our appreciation but also to cope in an unforgiving habitat. The quicker an individual plant is able to store food in its roots and stems, the better its chances of survival when those dry months roll around. Finally, a healthy root system will enhance the development of the stem, which will quickly begin to display the caudiciform traits that make this genus so interesting.

Expectations and interventions

Commercial horticulture has trained us to expect uniformity in the plant world, but seed raising reveals the great diversity of forms that can appear within a single species—even those from a single seed parent. Nature is a harsh steward. Species evolve within a wide spectrum of available niches express a range of traits that allow them to succeed in a range of conditions, so in every group of seedlings there are runts and super-plants designed to contend with all manner of environmental hardship. From a population standpoint the more diversity the better. The runt may not use much in the way of resources, but it may survive unusual circumstances—and even thrive.

By attempting to create optimal conditions, we are selecting for certain desirable traits: quick growth, a robust trunk, a pleasing form. All of that nurturing interacts with nature in a variety of interesting ways, and you begin to cogitate all sorts of interventions to get the results you want (although some operculicaryas have a windswept bonsai look almost from the start). There is no doubt that propagation tinkers with the natural order of things, but by optimizing growing conditions, seedlings of two or three years may rival much older plants from habitat.

There are other interventions that can influence development. The use of pruning and restraint can guide a seedling in the direction of a desired form. Subterranean rocks cleverly placed beneath transplants stimulate interesting root formations to be revealed years later. Control and structure is only a starting point. Imagination and creativity are also tools of the propagator. ❖

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Northernmost sightings of *Bursera microphylla*

For years I believed that the northernmost locale for *Bursera microphylla,* or for any plants in the genus, was South Mountain in Phoenix Arizona, 33.2˚N, 112.3˚W. However, Turner, et al. in their book *Sonoran desert plants: an ecological atlas*, report two sightings further north: a pair of vouchered specimens from the White Tank Mountains at 33.6˚N, 112.6˚W and unvouchered sightings in 1998 by Paul R Krausman and John J Hervert from the Harquahala Mountains at 33.7˚N, 113.4˚W on (presumably south-facing?) steep canyon slopes and the canyon bottom. —Root Gorelick

Large *Bursera microphylla* at South Mountain.