

## Never Too Many Plants!

In the interest of accuracy we need to define 'plant' as any cherished horticultural specimen that is not a weed, although, as you know, that can be debatable. Such fun it is to produce a plant from just a piece of another!

Most women gardeners remember the neighbor's bit of philodendron that became a first houseplant and many of us trained a sweet potato vine up, over, and down the kitchen window to substitute for curtains. For enthusiasts the top of a pineapple went into a pot, acorns and seeds of all sizes went into pockets and some eventually were actually planted and grown. Propagation became a game spurring us to study it as both art and science.

Making new plants can be done year around but there is a best season for each species. In August, as seed stalks ripen, you may see the occasional stalk wearing a paper bonnet, designed to keep ripening seeds available. If you want to encourage some annuals such as larkspur you can allow them to scatter at their pleasure to thicken the patch you have.

If your garden is home to tiger lilies, you will notice the black bulbils (baby bulbs) in its leaf axils just waiting to roll to the ground, root and make new lilies which will bloom in two years. Grown-up bulbs such as tulips and daffodils with solid interiors will often split on their own to form new bulbs or you might rush the process by cutting a bulb into sections. I would rather plant the whole lovely thing and wait, trying to remember that in time those bulbs would respond to being lifted and rescued from their jam-packed plot and spread about, making more, modestly.

To make more plants most extravagantly, seeds are the way to go. I expect, because seeds are formed in such astonishing numbers there will always be quantities of seeds available for home gardeners. Commercial practice in many enterprises trends toward more of fewer, with the result that the variety of seed grown plants will narrow, which explains the worldwide effort to save and salvage seeds of all species of vegetables and flowers. There is health in genetic diversity, as seen in the customs prohibiting the marriage of first cousins.

Cuttings are quicker and August is a good time to take cuttings from coleus (*Solenostemon scutellarioides*). A packet of seeds I started a few years ago, expecting plants of many colors, yielded a crop of indistinguishable cousins. Coleus makes a cheerful foliage houseplant, that, when it gets out of bounds, can be tossed, keeping a few stems for the next lot.

All of this is going to look pretty amateurish as the new wave of propagating takes over. Micropropagation is an outgrowth of the development of tissue propagation that first emerged mid-20<sup>th</sup> century and became a focus of attention in the 1990s. The prime value of micropropagation is speed. In a more leisurely age you grew a new cultivar of garden phlox, for example, and divided it, redivided it year by year. It was not all that slow since 4,8,16,32,64,128,256,512,1024 beats the Dow.

However, moving propagation to a germ free, bug free lab means that upwards of hundreds of thousands of clones result. Using tissue culture, a few cells of meristem (growing tissue of a plant) tissue in sterile agar, with nutrients added can result in quantities rapidly. It can be done by home gardeners but would involve a sterile area and hormones and nutritional chemicals designed for specific species. But then, most home gardeners don't need to produce 100,000 plants in two years, do they? Would you care to wager that kits designed for specific species, say roses, will be on the market before too long?

The greatest value in this technique may lie in its ability to provide plants of species that are not successful when more traditional methods are used, plants that may be desired but so difficult that they remain scarce and expensive, such as some orchids. Seeds of orchids have been grown in flasks of nutritional medium for decades but seeds of hybrids do not provide a clone: tissue culture does.

Another plus for plants grown by micropropagation is the transportation costs are lower. Safely secured in their little vials, they may be allowed through international quarantine barriers as they harbor no pests or diseases. Nor will harsh weather ruin them as may happen to growing plants trucked into an unexpected snowstorm.