

Bruce Briggs: Is your computer system measuring or monitoring when to apply water to your gallon-size plants?

Tom Fessler: Our computer is capable of doing that, but we haven't programmed it to do that yet.

John LaForge: What medium do you use inside your greenhouses?

Randy Murphy: It's all pumice in the ground beds and is 10 in. deep with two drain lines under each bed.

Divide and Conquer: Propagation of Herbaceous and Tree Peonies

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INTRODUCTION

If there is a critical moment in the propagation of herbaceous peonies (*Paeonia*), it comes at the very moment you attempt to divide a mature plant. All of your dreams for commercial success hinge on that decisive cut. Like the diamond cutter in the TV ad perched on the back seat of a moving car, the next stroke will determine if you'll walk away with two, five-carat stones or a lot of worthless chips.

In the next few moments, I will share with you how this operation is performed at Caprice Farm Nursery. Whether for walk-in customers who will closely inspect our peonies on-site or for our mail-order clients who rely largely on our reputation, we endeavor to provide our customers with healthy, well-grown plants of the highest quality.

HERBACEOUS PEONIES

Let's begin with a caution. Avoid using older plants since by the fifth year the clumps will have grown too big and too heavy to lift without damage to man or peony. I start with a well-watered 3- to 4-year-old plant. I cut the foliage to within 4 in. of the ground. Next, imagine a circle 32 in. in diameter (or 16 in. out from the crown). Using a garden spade and following that circle, dig down the full length of the shovel face, producing an inverted cone of root mass and soil. Supporting the cone with both hand and spade, lift the root mass free of the hole, being careful not to break the brittle roots.

Now off to the work station. Wash the clump, completely freeing it of all clinging soil. Left in place, the weight of this soil is enough to produce unacceptable levels of breakage.

Here's where your money is made or lost. Examine the clump carefully. Count the eyes and find where the main roots connect to the crown. The "eyes" or buds are similar in appearance to those found on the common potato. When done, you'll want three to five eyes supported by a root system at least 8 in. in length.

In choosing a cutting device put emphasis on comfort and controllability. Some workers prefer a knife. I'm happier with a #4 or #6 FELCO clipper.

After I have determined where my best divisions are to be found, I make my first cut. Gently pull on one side of the root allowing the blade to shear through cleanly. Sometimes this shear cut must be made in several small steps. It depends on root size and toughness. After all retail-size divisions (divisions with three to five eyes each) are cut, they should be trimmed of all small thread-like rootlets. This trimming promotes faster growth and healthier plants. Any broken or rotten roots are also trimmed off at this point. I then plant back all the smaller pieces—these may take additional years to reach digging size.

Hybrid cultivars are different from *Paeonia lactiflora* in that the eyes tend to cluster on thinner necks which makes dividing more difficult and consequently produces lower yields. It is this lower yield that accounts for the higher price of most hybrid peonies.

TREE PEONIES

This may sound trivial, but it is extremely difficult to keep cutting instruments used in grafting clean and sharp. With each cut, a purple, starchy, hard-to-remove residue builds up on the blade's sides and edge. Moreover, I believe that this residue may come to harbor an infectious contaminant. Since razor blades are very cheap, I use a fresh single-edge razor blade for each graft.

I start in early-August with a 2- to 4-in. scion from the mother stock with at least one bud. The second component is a herbaceous *P. lactiflora* root 8 to 10 in. long and from 3/4 to 1 in. thick. In turn, I make a cleft graft on both, line up the cambium, and wrap securely with grafting tape. This newly grafted unit is packed into a plastic lined crate containing barely moist peat moss. I keep the new graft at approximately 80F for 2 to 4 weeks until the grafted elements have knitted together. It is then planted in a trench of well-worked soil with the top of the scion 4 to 5 in. below the soil line.

Al Rogers, the senior partner at Caprice Farm Nursery, has written a very comprehensive book on *Peonies*. Published by Timber Press and just off the presses, peonies, covers plant propagation as well as worlds of other peony-related matters. It is the first major work on the subject to be produced in 78 years.