

Mini Tanks

If you have some experience with aquariums, a tiny tank filled with plants can be a lot of fun.

By Karen Randall

I have received a number of questions about the mini planted tanks that I keep in my home and occasionally bring with me to aquarium society weekend workshop-type events. Although we think of very small tanks as being hard to manage (and they are for inexperienced aquarists), I have found that heavily planted small tanks are remarkably stable. I particularly like working with 2½-gallon tanks because I love their small size and portability. A tank of this size is not very heavy and can fit almost anywhere in your home that you have an electrical outlet handy.

As with other aspects of aquatic gardening, there are as many ways of approaching a project as there are people. But here is how I set up my mini-tanks.

Because of the small tank size, I skimp a little on substrate depth. I usually end up with about 2 inches of substrate, but, of course, the plants are small, too, so there is no need to accommodate extensive root systems. In the bottom half of the substrate I put either laterite or a small amount (no more than 10 percent) of garden soil. The top inch is well-washed, fine (1 millimeter) gravel, as it is in all my tanks.

I use a 7.5-watt mini-heater in the tanks in the wintertime. These heaters are non-thermostatic, but keep the chill off overnight. In the warmer months, I unplug the heater completely. Remember that the tiny organisms that are suited to inhabit a 2½-gallon "puddle" are adapted to withstand temperature variations in their small bodies of water in nature as well.

The filters I use are Aquaclear "minis." These filters are small and also have an adjustable flow control. They can be slowed down to a mere trickle. Marineland also makes a mini-Penguin filter that would probably work equally well. It is possible that the tanks would do fine with no filtration, but I like to provide water movement in my planted tanks, and I also want a place to feed carbon dioxide (CO₂) into the tank. These little filters do both jobs nicely.

I use a standard pop bottle yeast reactor to provide CO₂, and this is fed into the filter intake. There is, of course some loss of CO₂ as the filter water spills back into the tank, but in a tank this small, that is probably a benefit.

For light, I have found that a swing-arm style, 13-watt compact fluorescent desk lamp can be placed beside the tank and the arm swung over the top of it. These lamps come with 2700 Kelvin (K) tubes. While the coloring is a little "yellow" for my taste, I have used these tubes for extended periods of time with excellent plant growth. More recently, I have replaced them with 5000 K tubes. The plants have shown no real change in growth, but from the standpoint of eye appeal I like the color of the tubes much better.

Plants must be chosen with care for a mini-tank. Some of my picks are *Micranthemum*

Remember that the maintenance rules are no different for a mini planted tank than for a big one. Don't overstock or overfeed. Plant densely from day one, and do regular water changes. You will probably have to trim plants more frequently than in a larger tank because even small plants grow quickly if you are caring for them well.

In a tank this small, remember that your hand will displace a lot of water if you stick it in with the tank full. It is also hard to get your fingers between small plants in such a tight space. I have found that it is almost mandatory to have some special gardening tools for mini-tanks. Aqua Design Amano sells beautiful instruments for these purposes, but they are quite expensive. Ask your dentist if he can order you a pair of long-handled, small-blade curved scissors and long curved forceps. He (or she) may even have some old ones he can give you. I use a small putty knife with a piece of bonded filter material tied on with fishing line to clean the glass. A chopstick can be very helpful for pushing plant roots into the substrate. A piece of rigid air line tubing with a long piece of flexible air line tubing attached makes a good siphon for a tank this size.

Give a mini-tank a try. It can be a wonderful new way to enjoy aquatic gardening, and give you the opportunity to work with species that would be lost in a bigger tank. Happy gardening!