

## Beginner Planted Tank Success

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**W**ith our very first tank my wife and I decided to dive in and go straight for a fully planted aquatic jungle. We did it, here's how.

### Lights

I don't think there is any factor more important to success than light. Since we had already picked a quarter cylinder show tank (24" deep, 27" radius), this posed three problems. First, the widest light fixture we could get was about 24", the second was that the light would have to penetrate 24" deep and the last was that it left the back corner of the tank in deep shadow and low light.

What we decided on was a 24" dual 65watt power compact fixture by CoraLife. This was the best we could afford (after buying the tank) and gave us just over 2 watts per gallon of light. Based on my research and the questions I asked on the KWAS forums this is pretty much the minimum amount of light needed to be successful with live plants.

### Substrate

Our research indicated that regular gravel or décor sand would be fine for some plants like swords and other easy and simple plants like water sprite, but we wanted to compensate for the low light and water depth. We decided on a 60/40 mix of CaribSea Eco-Complete Planted Aquarium Substrate and regular small black gravel from Big Al's. We purchased enough to cover the tank bottom to a total depth of three inches.

### Plants

The next challenge was the plants themselves. By chance (or perhaps luck) I managed to buy one of John Skerrett's plant packages from the KWAS forums. At the time I had no idea of his reputation for awesome plant packages. This saved us from having to find healthy and truly aquatic plants at a store. The package included about 15 different kinds of plants and all

were very healthy. It was an excellent starting point for a beginner like me. If you're just starting I highly encourage you to get your first few plants from other hobbyists.

### Fish

Community fish with brown bristle nose plecos and Otocinclus cats. The community fish we have include neon tetras, white clouds, mollies, loaches, kribbs, guppies, harlequin rasboras, and a few single specimens of gouramis. We really should keep the bio-load lower to avoid the struggle with algae, but we like the fish as much as the plants.

### Carbon Dioxide

We have yet to opt for a compressed gas setup. We've only ever fed the plants trace elements (as per the bottle, never tested the levels), Flourish Excel (bio-available carbon in liquid form) and CO2 from a double 2L DIY setup with a \$20 bubble ladder. This system has presented a few challenges, namely learning the hard way that letting the CO2 crash really screws with the pH and the fish become quite stressed.

### Success...?

Here is our 54G planted community tank at 1 day, 21 days, 35 days and 6 months respectively.



*Day 1*

*Day 21**Day 55**After 6 months*

*All photos by **Cameron Turner***

## Lessons Learned Since

Since we started, we've discovered some things that we could have done differently. Maybe they'll help you have even more success than we did. Don't expect to

keep everything you start with. We ripped out all of the fast growing stuff because it was choking off the ones we liked best. Initially, this growth was great for fighting back the algae, but not worth keeping in the long run. We also have had very little success with red plants, crypts and ground cover. We're still learning.

If using pure Eco-Complete for the substrate isn't possible (it wasn't for us), then consider mixing with the finest gravel/sand you can afford. If starting again we'd use 60/40 Eco Complete and Fluorite Black Sand.

Shallower tanks are cheaper to maintain in terms of light needs. If you keep the same volume of water in a long, wide, shallow tank, you'll have more success and also have lots more ground area for planting things. We're looking at this option for our next tank.

Get compressed CO2 if you can afford it, or a log book if you can't. Keep track of the last time you changed the DIY CO2 bottles because a week or two of neglect can kill the weaker fish in your tank.

T5 lights rock. T5 high-output bulbs are even better. With proper reflectors I've managed to get better growth in a newer tank with less than 2 watts per gallon of light. If I had it to do again, especially on a rectangular tank, I'd go with as many of these strip lights as I could fit/afford 📍