

Reef Aquarium Checklist

Bonus content from the August 2009 FAMA magazine article "When Reef Tanks Come Alive."

From the Editors of FAMA magazine

Starting a reef tank can be daunting. However, with this guide you'll be able to plan your system from start to finish.

- 1) You've got to figure out your goals for your reef system.
 - a) You need to plan what you want to keep in your reef tank. Everything you plan is dependent on your reef tank inhabitant choices. For a discussion of selecting appropriate fishes for an aquarium, see "Recruiting Marines" in the August 2009 edition of Freshwater And Marine Aquarium.
 - b) Research every aquarium inhabitant, their husbandry needs, compatibility and other requirements before you purchase anything or make any plans.
 - c) Figure out where you plan to keep the tank.
 - d) Figure out how big you want and need your reef tank to be.
 - e) Plan out how you will provide for the needs of the fishes and invertebrates you intend to keep.
 - f) Come up with a budget to guide you in purchasing equipment for your new reef setup.
- 2) Select a tank. For a great discussion of what goes into picking a large reef tank, read the article "Choice Reef Tanks" in the August 2009 FAMA.
- 3) Plan what equipment you'll need based on what you want to keep in your reef system.
 - a) If you're not keeping any photosynthetic coral species, you can skimp on lighting. Just provide adequate water quality and filtration. Consider whether or not you want to purchase live rock to include in your setup.
 - b) If you want to keep photosynthetic corals, you'll most likely need strong lighting. Light requirements vary depending on what species you are going to keep. In general, plan to include a powerful high output T5 fluorescent fixture, a metal halide fixture or some other form of strong lighting for corals.
 - c) If you plan to keep corals, you'll want to pay special attention to water quality. You might need to include a protein skimmer, a plenum system or some other advanced filtration technology, along with ample live rock, to make sure your system's water quality is good enough for your corals.
 - d) You might also need to make plans for calcium supplementation, either in the form of an additive or through the integration of a calcium reactor into the system.
- 4) Decide on a sump. A sump is an external container, plumbed to the main aquarium, that is designed as part of a system that delivers water from the main aquarium to the sump and back into the main aquarium.
 - a) You may or may not want to include a sump, depending on your setup.
 - b) If you have a larger aquarium, a sump can make maintenance simpler.
 - c) Sumps require more input, time and know-how on your part.
 - d) Sumps involve plumbing and knowledge of water flow. Be sure to plan out your plumbing and test your system for leaks before setting it up or buying any livestock. For a discussion of sump plumbing, read the article "Go With the Flow" in the July 2009 FAMA.
 - e) Sumps allow you to locate equipment outside of the main aquarium.
 - f) Sumps provide additional water volume, increasing your system's stability.
 - g) Sumps are great places to house protein skimmers.
 - h) Sumps allow you to test water quality, add supplements and additives, and control water quality more easily.
 - i) Sumps are not necessities, but many reefkeepers find them invaluable.
- 5) Figure out how to provide for your reef tank inhabitants' environmental needs.
 - a) Reef aquariums are by definition marine aquariums. Research the chemistry of saltwater and be sure you have a reliable source for saltwater, or be sure you know how to mix saltwater yourself.
 - b) Make sure you understand each of your reef tank inhabitants' husbandry needs. Every fish, coral and invertebrate should be compatible and their husbandry needs must be met for your system to be successful. Do research, talk to other hobbyists and have a solid understand of your reef inhabitants' needs before you purchase them.
 - c) Decide on whether you will include live rock in your setup. This is very common in modern reef aquariums.
 - d) Decide if you will include a sandbed in your aquarium or sump. Plan its depth, composition, grain

size and long-term care.

- e) Make sure your water temperature will be appropriate.
 - f) Make sure your system has enough water flow for your corals.
 - g) Make sure your system's water has the necessary chemical composition for your reef tank inhabitants.
- 6) Consider adding additional equipment.
- a) Once you have your lighting and filtration figured out, and you've planned out how you are going to provide for your intended reef tank inhabitants, you need to decide on including additional equipment.
 - b) Equipment like ozone reactors, ultraviolet sterilizers, chillers and nitrate reactors are potentially beneficial.
 - c) Though potentially beneficial, additional equipment may be unnecessary. Alternative methods of resolving issues that additional equipment is intended to address may be better than paying for an "off-the-shelf" solution.
 - d) Additional equipment adds to the overall cost of the system. Be sure to check your costs against your budget to stay within your means.
 - e) Additional equipment can generally be added later if you find it is necessary or beneficial to your system.
- 7) Plan your startup.
- a) Once you've purchased your equipment, planned your setup and are ready to begin, you must cycle your aquarium and prepare for adding your reef tank inhabitants.
 - b) Make sure your reef tank's nitrogen cycle is established before adding any reef tank inhabitants.
 - c) Make sure your water parameters and water quality are stable.
 - d) Have a maintenance schedule in place before you begin. For a great discussion of reef tank maintenance, read the article "Maintenance Brushup" in the August 2009 FAMA. To download a reef tank maintenance schedule, visit FishChannel.com/MaintenanceLogs.
 - e) Make sure your décor, including live rock and a sandbed, is set up, safe and ready for your aquarium inhabitants.
- 8) Above all, remember the cardinal rule of planning a reef aquarium: consider your system carefully and take time to plan it out, because the choices you make the first time around can save you time, money, heartaches and headaches in the future. Skimping on equipment might sound attractive up front, but in the long-run you might be creating a future headache for yourself, not to mention increased costs and potential system failures.
- 9) Congratulations! You've done all of the legwork necessary and are ready to stock your reef aquarium. Take your time, relax and enjoy this wonderful hobby!