

How do I setup a Terra Aranea Bioactive Terrarium?



From the desk of The Dude

What is a bioactive terrarium?

A bioactive terrarium is a self-sustaining, self-maintaining, direct replication of the natural ecological cycle that happens on the rainforest or desert biome. Each biome is composed of thousands of different detritivores that break down decaying matter to return nutrients back into the soil. Detritivores such as isopods and springtails are the most commonly seen. As well as detritivores, there are essential biological processes that occur throughout to help breakdown organic matter into viable nutrients not only absorbed by plant roots, but by your substrate as well.

Why go bioactive?

In any terrarium the soil is the most important part of the setup. The soil is the backbone for live plants, water drainage, and tank maintenance. Many times, hobbyists will setup a terrarium and have to break it down months later because of the microbial build up in the soil, as well as the death of plants from using soil that becomes water clogged. Having a proper bioactive setup allows for optimum plant growth, but also allows for tank longevity (10+ years without a soil change) if kept properly. The detritivores and biological processes established in the tank will break down feces and other decaying matter which recycle nutrients back into the soil, thus keeping the substrate fresh and ready for the next generation. It also allows you to provide a natural setup for your wild animal. While they are commonly bred in captivity, they are still wild animals that need to be treated as such.

How do I go bioactive with a Terra Aranea setup?

Layer 1 - Terra Aranea substrate

The bottom layer of your terrarium sits the bringer of life, the specialty terrarium soil known as Terra Aranea. This specialty mix created by the Dude is the staple for a living substrate for all spiders, tarantulas, scorpions, and other invertebrates. This one-of-a-kind substrate covers the need of all the biomes (from wet to dry) and not only drains, aerates and composts effectively; but prevents the harmful buildup of negative bacteria and molds, which is a common problem with invertebrate keepers. Terra Aranea also retains all burrows and hides that your inverts make, which is very important especially when you are dealing with spiders (such as trapdoor) that utilize the substrate for their evolutionary niches. I have found this substrate brings out many of the instinctual niches that many desert animals do in their daily life. Terra Aranea provides excellent organic nutrition for your vivarium by creating necessary air pockets for root development and plant health. These air pockets are also necessary for the BioShot to create a sustainable population in the vivarium. This substrate when used exactly as directed in the Dude's guide this substrate can last 10+ years in the terrarium without ever being changed. This mix should have at least a 3" layer in the terrarium. Most tarantulas however prefer deeper substrate to create their dens. Depending on the biome you are replicating, adding a small amount of water into the Aranea will be very helpful with humidity retention. Daily misting is not needed for your drier biomes, but if keeping a more humid invertebrate (such as a Goliath Bird Eater) misting daily will be effective to maintain humidity requirements for those species. You do not need a drainage layer with the Terra Aranea as long as it is not overwatered and properly maintained with the Dude's Bio Shot.

Layer 2 (above the substrate)

After the Terra Aranea has been established in your terrarium it is essential to add many different biodegradables into your soil mixture. Not only will these biodegradables break down slowly over time creating organic nutrition for your plants and soil, but they also play a vital role in aerating your Terra Aranea. Biodegradables, such as the Dude's Cork Bark Pieces (included with all Terra Aranea Kits) are great when mixed in deep into the substrate. Not only will different invertebrates utilize these to help maintain burrows, dens, and tunnels, but it will also become a microbial hotspot for beneficial fungi and bacteria. AAA Spag Moss and leaf litter can also be mixed into the substrate and placed on top to help with humidity retention and biodiversity in your substrate. Overall, the Dude's biodegradables are the fuel that drives the car (the car being the substrate). After all biodegradables are thoroughly mixed to your liking, simply spread the Dude's Bio Shot throughout the soil to jumpstart your bioactivity. Springtails and Isopods can also be added to aid in soil aerating and organic matter breakdown. However, it is very important when using Isopods to pick smaller, not so invasive species as Tarantulas and Scorpions can be over stressed when larger, faster breeding Isopods take over the terrarium.



Maintenance with your Aranea –

While the bio activity is a key factor with the life of the vivarium, the Aranea itself will need spot cleaned occasionally in specific areas of the terrarium upon initial setup. After about a month or two most users will readily see the bioactivity in the terrarium. This will show as small fungal patches, mushrooms (depending on biome being replicated), positive molds and breakdown of organic matter will easily be seen. To maintain this process, it is imperative that a source of biodegradables is readily available to be consumed by these biological processes. Adding more leaf litter every six months to a year is optimal for tank longevity. Similar to the Terra Firma and Terra Sahara, the Terra Aranea will remain dry on the top layer, but moist in the middle and bottom, maintaining this equilibrium is very easy obtained when replicating all biomes. For more humid species, daily misting is necessary to ensure humidity retention in the Aranea to ensure proper husbandry. Another factor to consider is many Tarantulas will spend time in their burrows, enjoying the mild humidity pockets that this substrate has to offer when maintained appropriately.





-Josh Halter

The Dude Abides

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