



## HAWK HILL ORCHIDS

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### **PART 2: MORE ON ORCHIATA™ BARK**

by Robert Hamilton, Hawk Hill Orchids

Recently, I received email from Russ Vernon asking me to update my experience with Orchiata bark. Russ heard from a prominent Southern California grower his collection had suffered root damage when grown in Orchiata. The barks pH had dipped too low to sustain roots. In the appended note I'll share my experience which does not corroborate this.

My partner John Leathers and I began growing in Orchiata after we were invited to share the cost of a shipment with Golden Gate Orchids. This was a generous offer and an act of kindness and good will on the part of Golden Gate.

At Hawk Hill John grows masdevallias and I grow odonts. Our initial order was for 100 bags of bark. We chose bags of two sizes, half the order was medium and half was fine (Orchiata has a confusing and bizarre way of branding bark size which even today I cannot fathom).

We had heard from growers we respect, namely Andy Easton of New Horizon Orchids, Kevin Hipkins of Royals Orchids, Australia and other "Anzac" growers the product was excellent. I am guessing that first order was about four years ago. The reason for turning to this offshore product was simple.

The bark we were buying, which came from a producer in Oregon, was at best "iffy" in quality – poor is probably the better word. Some shipments were fair while others were poorly graded. The shape of the bark was not conducive to keeping open space in the mix. Our plants were suffering. This fir bark was lasting less than a season. While on the roof one day I noted a dead zone in the area I was dumping spent bark. The situation had gotten bad enough that we got in our car and drove to Redding, on the Northern California border, to inspect the bark of a different producer, a distance of 211 miles. While better, we were not impressed.

We initially used Orchiata straight out of the bag with no amendments. Because the cost of this premium bark was higher than local products we began amending the bark with lava-rock and charcoal, eventually abandoning charcoal as messy and useless. Initially, no buffer was added (a buffer is typically some compound of calcium that dissolves in proportion to the acidity of a substrate thus keeping the pH somewhat constant. Dolomitic limestone and oyster shell are two such products).

Our immediate effect of changing to Orchiata bark was dramatic – excellent plant and root growth. We can also share experience with the lifetime of this product. I am ashamed to admit there are still a few plants that remain potted in mix from that initial trial. Note, this four-year-old bark: it has begun to breakdown which is something you'd expect from a mix this old. It is holding more moisture than it should and the tops of the pots are showing algae and moss growth – an indicator that the bark has exceeded its lifetime.

In response to Russ' inquiry I performed a "soil paste extract", a standardized protocol for measuring substrate pH, on my oldest mix to see if there is a pH issue. Indeed, there is. This old bark measures a pH of which is quite acid – too low for good growth. Some roots in this old

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media have suffered. Having said this, four years is an outrageously long time for an orchid to remain potted in a mix. This is a testament to my laziness.

As experience with Orchiata bark progressed I began amending it by adding oyster shell as a buffer. Living on the California coast this is an easy material to get. It is sold by agricultural suppliers and in pet stores for bird owners and tropical fish raisers.

With time, after inspecting excellent growing done in our greenhouse which is shared with Tim Brydon, I followed Tim's lead and began adding red lava-rock, about the same size as the bark, to the mix. Thus, I now had a buffered mix more likely to maintain a stable pH and the lava-rock, being cheaper than the bark, is a cost savings. Up to 50% does not seem to interfere with excellent growth.

I am currently repotting my collection en-masse. The current bark/lava-rock mix is holding up very well. I should say – excellent. The roots look great (having said this, there are some odonts that, probably because of their genetics, never hold good roots). There is nothing that makes motives change from this excellent mix. We just purchased more Orchiata. We'll continue to add a calcium buffer as well as lava-rock as the lava-rock filler is cheap and, as an added benefit, lava-rock adds weight to the pots.

So, what's up with the warning Russ received from the Southern part of my state? I can't say. Was it "el Toro poo-poo"? There is fact in the issue that aging bark substrates experience a pH shift toward acid. This holds true no matter what source bark is used. From my experience, Orchiata is by far the most stable and best bark I have used. Is four years a long time to keep an orchid in a mix? Yup, four years is too long.

Having said these things I cannot account for another grower's culture. Incorporating a calcium buffer will extend the lifetime of a mix. I suspect such buggers should even be applied annually but do not have experience with this (perhaps a grower with more experience can elaborate)? Lava-rock is cutting costs and keeping the pots more stable because of its weight. It does not seem to hurt anything at 50% volume by volume.

In noting my continued endorsements of Orchiata, please bear in mind we've received no considerations from this firm. We do not resell bark or for that matter orchid sundries.

I remain an advocate for Orchiata bark. Try it, you'll like it!

