

Spagnum Moss, and how did it get such a bad name?

When I was growing up, **fresh spagnum** was the #1 material used for potting orchids, usually with 25-40% of granular material mixed in (bark, charcoal and/or LECA). At the opposite end of the spectrum you would find loose treefern fibres, which requires almost daily watering, due to lack of water holding capacity.

Over the past several years, I have repeatedly heard comments such as:

'I can't grow in spagnum'

'I kill everything I put in spagnum'

'If it is potted in spagnum, I repot it immediately'

What is going on ??? I will make an educated guess:

Most of the Phalaenopsis sold by box stores and super markets, are new arrivals from Taiwan. They are in a tiny clear rubber pot filled with pure spagnum, the only material that can legally be used for imported orchids.

Combined with the treatment in transit (poor), in the finishing nursery (good) and while the plant is sitting in the store (horrible), the net result is often a plant ready to collapse as soon as you bring it home - due to dead roots.

First of all, there are certain 'jobs', where only spagnum will do. The prime example, is rescue of an orchid that has lost all of it's roots. For Cattleya, Oncidium & Cymbidium, you place the plant in a plastic bag with 2-3 handfuls of moist sphagnum, close the top of the bag and place it in a moderately shaded spot. If the plant can be salvaged, in a few months it will set some new roots and a new growth, and you can pot it up in some more traditional material.

Secondly, like any other potting material, you have to **adjust the watering schedule** to the **pot & mix combination** you are using, and you can't treat spagnum the same as a bark/charcoal/perlite mix. Spagnum holds up to 10 times it's own weight in water, and readily releases the water to the plant. This means, that using spagnum, **you have to water less** - and that is not necessarily bad!

In order to maintain a simple watering schedule in our greenhouse, I have settled on combinations of pots/mix, which permit us to water everything on the same schedule:

- **All small seedlings:**
Always in plastic pots. Chopped spagnum with seedling size bark, charcoal & perlite:
 - 2¼" pots (5:2:1:0).
 - 3" pots (4:2:1:1)



- **Cattleya (large seedlings to mature)**
 - < 3½" = plastic pot with spagnum/bark mix.
 - 3½" = clay pot with bark/charcoal/perlite mix (50/50 seedling size & mature size).
 - 4" & up = clay pot, mature size bark/charcoal/perlite.

- **Dendrobium:**
Aussie keikis go into 2¼" plastic pots with pure **spagnum**. Bigger plants go into small clay pots with a spagnum/bark mix.



- **Oncidium, Odontoglossum and Brassia**
With my watering schedule, I cannot grow these in a bark mix (I have tried!).

Once I changed to the spagnum/bark mix, they are growing extremely well.

- **Paphs & Phrags**, always in plastic pots (Paphs do not want to dry out, and Phrags want to be soaking wet)

2¼" & 3" pots: Use chopped spagnum & seedling size bark.

In 3½" pots & up, I use regular spagnum and 1/2" bark, approx. 3:1 ratio.

The Paph shown here has grown in the spagnum & bark mix for approximately two years at the time this photo was taken .



- **Vandaceous**, net pots/baskets.
Always with spagnum/bark mix. 3"-5" net pots with 3:1 ratio, 6" & 8" baskets with 3:2 ratio.



The preceding photo is of an *Aerides odorata*, grown in a Vanda basket with a similar sphagnum/bark mix. It came in as an unpotted cutting from Florida, and it had several aerial roots only.

I wetted the arial roots to make them pliable, so I could curl them around inside the empty Vanda basket. Then I packed the basket with sphagnum & bark in the usual 3:1 ratio. When you do this, you want the mix to be firm (finger tip tight), but not hard packed.

After one year this plant was running roots in and out of the mix, in addition to producing a good number of aerial roots. And no, the original arial roots did not die.

Also see photo on this page of blooming Vanda in basket with sphagnum mix.

- **Calanthe**, a terrestrial requiring 3-4 months of total rest between blooming and start of the next growth. I use a moisture retentive terrestrial mix, but many growers do very well using all sphagnum.
- **Cymbidium**, while I personally prefer a terrestrial mix, my dad grew his in a 3:1 sphagnum/bark mix.
- **Epidendrum** (reed stem types), another group that should never dry out. I grow these in clay pots (as they get top heavy), with sphagnum/bark mix.
- **Lycaste**, also a genus that does well in clay pots with sphagnum/bark mix.
- **Phalaenopsis**, all the commercial growers keep them in the sphagnum they arrive in. I can attest, that they do fine with a sphagnum/bark mix, packed less tightly than they do in Taiwan.
- **Zygopetalum**, another terrestrial that does not want to dry out. I could not keep them from drying out when I tried a granular mix, so I switched back to sphagnum and bark.

As can be seen, they do just fine in plastic pots with the sphagnum/bark mix.

The keys to growing successfully in sphagnum mixes are:

- ◆ Include 20-40% granular material (bark and/or charcoal) to aerate the mix.
- ◆ Water thoroughly, and then wait till medium is barely moist to water again (this can be 10+ days in winter). You have to gauge how long time it takes to dry out under your growing conditions.

When you grow in sphagnum, it becomes very easy to gauge how dry a plant is, by lifting it. If it feels 'light', water it.

- ◆ Apply fertilizer only in every 3rd or 4th watering. Drench with clean water in-between fertilizer applications, so you flush the medium (to avoid salt build-up).

NOTE: If the sphagnum is allowed to dry out completely, it turns hygroscopic. In that case, you have to soak it for hours (overnight) to get it to absorb water again.

Sphagnum is not just for *Neofinetia falcata* and *Masdevallias*. It works, and minimizes the time you spend watering.

