



## Albert's *Phalaenopsis* Growing Experience

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*Phalaenopsis* growers all over the world use different techniques to grow their beloved plants. Some growers cultivate *Phalaenopsis* by mounting them on fern bark or wood slabs with daily watering while others pot them up with media where the plants are watered only when the media is dry. When the growing conditions are right, healthy, vigorous plants that result will reward their grower with magnificent displays of blooms. Choosing a suitable growing technique and culture for your *Phalaenopsis* orchids requires some research, understanding, evaluating, experimenting and learning.

In this article, I will share how my *Phalaenopsis* plants are grown in relation to how some factors and constraints posed my home balcony where my plants are currently situated. There are four main factors that determine how my plants are grown:

- Species or hybrids of *Phalaenopsis* grown
- Growing environment
- Growing technique
- Culture

All these aspects are inter-dependent and need to be delicately balanced as the alteration of any one aspect will require changes in the others. There are also other constraints such as money, time and space that will eventually limit how far I can explore this hobby.

## The Four Factors

### (1) *Phalaenopsis* species grown

Below lists the *Phalaenopsis* plants I grow either inside baskets or pots:



**Left:** This *P. tetraspis* performs very well mounted on a basket.

#### **Basket Culture:**

*P. corningiana*, *P. cornu-cervi*, *P. equestris*, *P. gigantea*, *P. javanica*, *P. tetraspis* and *P. violacea*.



**Left:** The constant moisture provided by the pot, diatomite and sphagnum moss combination does the trick in blooming this *Phal violacea* x Sogo Tris well.

#### **Pot Culture:**

*P. cornu-cervi*, *P. gigantea* and *P. violacea* x Sogo Tris

## (2) Growing Environment



**Left and Right:** Albert's growing area is at the balcony.

Only a small corner of a very small balcony is allocated to me to do gardening. It receives direct morning sun from about 7.30 am to 11.30 am and bright, indirect light that is reflected from the opposite building for the rest of the day. The late morning sunlight can be scorching hot on clear days. As the balcony partially faces open forested areas, winds can be very strong and destructive, especially during the Northeast Monsoon period. Rain often splashes into the balcony due to these winds and the design of the building. Thus, the tinted windows remain closed all the time to shelter the plants from these harsh weather elements. Side effects from the closed windows include high temperatures that can soar to 34.5°C during late morning due to the strong morning sunlight and the lack of air circulation.

### (3) Growing Technique

#### Media Considerations:



**Left:** sphagnum moss and **Right:** diatomite

Different orchid growing media retain different amounts of moisture. Those that can retain more water means plants grown using them need to be watered less frequently. Media also vary in terms of their density and those that are heavier impart more weight to the baskets and pots and hence stability that can better withstand the effects of strong winds. Heavier pots will less likely be toppled over during the monsoon periods where powerful bursts of wind prevail.

I use a combination of sphagnum moss and diatomite. Sphagnum moss retains moisture while diatomite improves drainage and ensures just the right amount of water is retained in the media. The moisture-holding capacity of the moss eliminates the need for frequent watering. Diatomite ensures that the media will not be soggy wet or remain wet for longer than what the plants are comfortable with and increases air circulation to the roots, which is important in lowering the risk of root rot in a water-retentive medium.

The proportion of moss and diatomite in the baskets will be slightly different for different plants and varied according to the plants' requirements. More moss and less diatomite is used in the media for plants that love moisture and can withstand perpetual moisture at their roots as compared to that for plants preferring slight drying out between waterings. This way, watering is made easier by having the same watering regime for all plants and yet fulfilling the plants' requirement for moisture. Moisture-loving plants will still have moisture at their roots while others will dry out by the next watering.

For basket culture, the media used comprises sphagnum moss lining the sides of the basket and diatomite filling the centre of the basket. The media used for plants grown in pots other than *P. cornu-cervi* comprises mostly diatomite and a thin top layer of sphagnum moss above the diatomite.

### Hanging Pots vs Standing Pots:



**Left:** The baskets are hung up with hangers and ropes.

**Right:** The ropes are hung from the bamboo poles held by pole holders attached to the ceiling.

I grow my plants by hanging them up in a cascading manner as it maximises the use of the small amount of air space that is available for gardening. Not as many plants can be grown in that same space if they are arranged vertically on a vertical support or horizontally on the table.

The baskets are hung up using hangers and ropes on bamboo poles that are held by pole holders attached to the ceiling. Suspending the baskets in mid-air eliminates the need for a common contact surface such as a big metal mesh to which the plants are hung. None of the plants are touching one another and this prevents non-flying pests from crawling and spreading from basket to basket. The cascading manner reduces the likelihood of water droplets falling from one plant on top to the one below, which can be a way that diseases are transmitted. All these form part and parcel of the pest and disease control measures.

In the same arrangement, plants are also positioned according to their light requirements. Plants that need protection from the scorching sun will either be placed at the top rank or get shaded by other plants above them when the late morning sunlight becomes strong. On the other hand, plants that can withstand the strong sunlight are placed right in front unobstructed.



**Left:** The baskets are hung in a cascading manner.

#### **(4) Culture**

##### **Watering:**

Plants are watered once every two to three days if the weather is dry or every four to five days if it is wet. Different species with slightly different moisture requirements can be given the same watering regime as the proportions of moss and diatomite in the media have been optimised as described earlier. To prevent root burns resulting from salt build-up in the media, the growing media is flushed with water weekly. Similarly, leaf burn is prevented by washing the leaves thoroughly with water monthly to get rid of dirt and fertilizer salts that may reside on them.

Instead of mass watering, the plants are unhooked from their growing space and watered individually away from the rest of the plants. This avoids creating a mess in the balcony and lowers the risk of spreading pests and diseases between the plants. Water droplets on the leaves are blown dry by an electric fan after every watering. Poor air circulation in the balcony causes water to stay on the leaf for longer periods and increases the possibility of crown rot.

## Fertilising:

Water-soluble fertilizer is dissolved to about half the recommended strength and applied to the media once a week.

## Light:

My plants receive about 50% direct sunlight filtered through the tinted window panels in the morning and 50% reflected sunlight off the opposite building filtered through the same tinted panels in the afternoon.

## Pest Control:



**Left:** New plants are quarantined in one corner of the balcony away from the main collection of plants where they will be observed for signs of pests and diseases.

Pest control measures are always strictly observed to ensure plants are pest-free, which brings about many benefits. The biggest benefit is that there is no need to spray toxic pesticides that can be harmful to my family members especially when the plants are grown in the house. Having a pest-free collection enables me to enjoy this hobby without the constant battle with the pests or worry over declining plant health as a result of these pests. Furthermore, monetary and time resources can be saved as there is no need to buy and spray chemicals.

## Conclusion

Gardening is a dynamic, on-going process where improvements to existing theories and practices as well as new discoveries and knowledge are constantly being made. Growing *Phalaenopsis* is no exception and this present growing methodology described above may become obsolete very soon as I continue in my search for a better one.

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## About the Contributor

Albert is a member of the Green Culture Singapore discussion forum and currently focuses his time and effort in the cultivation of *Phalaenopsis* orchids. *Phalaenopsis*, with their broad leaves and elegant sprays of colourful blooms, are far more captivating than any other genera of orchids he has grown. Not only does he enjoy the beauty of these orchids, he likes to research, experiment with and learn all about them. Although he had started gardening since young, he had not ventured into this wonderful orchid genus until slightly more than a year ago. Hence, he feels there is still a lot more for him to experience and learn about them.

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