

The title 'Glossary' is written in a large, elegant, cursive script. Below it, 'Orchid & Potting Medium Glossary' is written in a smaller, simpler font. The text is surrounded by several detailed line drawings of orchid flowers and leaves, some in bloom and some as buds.

Glossary

Orchid & Potting Medium Glossary

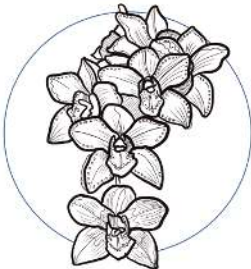
Aerial Roots: Sometimes orchid roots won't grow down into the potting medium but rather out into the air. These roots are not to be cut off but leave them alone, as they aid in capturing nutrients that float by on air currents. This article explains more about air roots or aerial roots.

Anther: This is one of the reproductive parts of the orchid that holds the pollen. It will be located in the middle of the orchid (called the throat) around the stamen. Some anthers are very pronounced, others are tiny but have a cap covering them.

Anther cap: A covering that protects the anther from various harms: excessive rain, large insects, and others. It will provide extra coverage to protect the pollen.

Back Bulb: Older pseudobulbs that have already grown to mature size, flowered, and now do not use their energy for flowers, but to help nurse the new pseudobulbs that are currently growing. Don't cut the back bulbs off your orchid unless you are positive that they are dead. They can be a power supply for orchids for several years, nurturing the newer pseudobulbs.

Bifoliate: Bi means two and foliate comes from the latin, leaf or leafage. Literally, this means a two-leafed orchid, but what it signifies is that the leaves develop in pairs. Phalsenopsis are not bifoliate, since one leaf grows at a time (unifoliate).



Bilateral Symmetry: If you place a mirror down the center of an orchid, you will get the same reflection in the mirror as it is in real life. This symmetry is called bi-lateral, meaning the lateral sides of the image reflected in the mirror imitates the real image. Our faces are also bilateral, which is why some people rationalize the "why" humans are attracted to orchids.

Bloom: The open flower on an orchid.

Bud: The flower has not yet opened and its petals and sepals and is still maturing. It's usually a little "ball-like" structure at the end of the flower spike, a shade lighter than the orchid petals will be. The petal-like structures that form the bud are what later grows to be sepals and sometimes imitates the petals to a perfection. There are always 2 petals, 1 lip, and 3 sepals in an orchid.

Bud Blast: The bud (young, underdeveloped, an immature flower) has not opened yet, but all the sudden stops growing and aborts the mission completely. The buds wither and fall off. This can be caused because of a cold current of air, toxins in the air (paint, hairspray, or others) and underwatering. This article talks specifically about bud blast.

Bracts: a modified leaf or leaves, often very colorful, that grows around flowers or stems in bromeliads.

Canes: Canes are another word for pseudobulbs but more commonly associated with Dendrobiums. For some untechnical reason, we think of pseudobulbs as big, round, plump storage units, but since some orchids have extremely thin pseudobulbs, like Brassavolas, the word pseudobulb doesn't line up correctly in our brain. So, we renamed them to canes. They are the exact same thing as pseudobulbs, just thinner.



Clone: A clone has the same DNA as the parent plant, in this case, one parent plant. It doesn't share the combined chromosomes of two plants. In terms of plants, the word clone comes up when a baby plant sprouts out from the side of the mother plant, without fertilization. It will have the exact same characteristics as the mother plant: size, shape, fragrance, and coloring.

Column: Located in the middle of the orchid, this center's reproductive reference is to both male and female parts in the orchid.

Both the place of receiving and giving the pollen sac, the column can be referred to in some literature as the gynostemium. Most household plants do not have this feature, leaving the male and female structures separate. Not all orchids follow this pattern, for example, the Cattasetum Orchids don't. This article explains more about the unique

structures of the male and female parts in a *Catasetum* orchid. All other genera have the male (Stamens) and female (pistil) fused together to form the column.

Deciduous: An orchid that will shed its leaves annually is called a deciduous orchid, depending on the time it blooms. *Dendrobiums* and *Catasetums* are deciduous and quite frankly, are a bit ugly to look at when all the leaves fall off. The orchid sits there, looking like it's half asleep, half dead. Deciduous plants need a period of rest to store energy for the next blooming cycle. Whatever you do, don't throw the orchid away during this period. *Phalaenopsis* orchids are not deciduous.

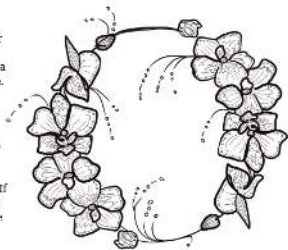
Endosperm: The internal part of a seed that provides the nutrition for the new plant until it is mature enough to grow roots and leaves. Orchids do not have this endosperm layer inside the seed, which makes them extremely light. This is important for the seed so it can travel on air currents and reach the nooks and crannies in high trees. That also makes the seed extremely fragile, depending on a fungus called *Mycorrhiza* (see below) to provide food for it.

Epiphytic: Any plant that grows on top of another plant, without having a parasitic relationship to it. The secondary plant is just an anchor or support system, but there is no trade of nutrients between them. This term is used in comparison to household plants that are terrestrial, growing in soil or earth.

Eyes: small "bumps" on the rhizome or stem where new growth could appear. These growth nodes are not developed but can develop when needed, forming new pseudobulbs or flower spikes. This happens because if the developing eye becomes damaged, new growth can emerge from an underdeveloped eye. In monopodial orchids, like *Phalaenopsis*, eyes are harder to visualize because they are in between the leaf and the stem. Without removing the leaf, it's almost impossible to see them. Eyes on sympodial orchids are easier to spot since they will be elevated bumps that grow on the side of the rhizome.

Fan: In *Phragmipedium* and other orchids that do not have a pseudobulb per se, they grow leaves to the sides from a middle stem. This outward growing from a central point forms a type of fan structure.

Front bulb: The newest pseudobulb growth in a sympodial orchid, as compared to older pseudobulbs (or back bulbs). The front bulb is what you need to keep in the middle of the pot when repotting, so the orchid can continue growing toward the other side of the pot. If you place the front bulb facing the side of the pot, the new growth will grow over the



rim and down the outside of your pot. Front bulbs are more susceptible to insects and bugs since the plant tissue is tender and filled with nutrients.

Genera: They bigger, broadest category of orchids. Genera examples: Vandas, Phalaenopsis, Phragmipediums, Oncidium, Cattleyas, and many others. From this division, they separate into smaller categories, called species. Genera is used for the plural, and genus is the singular term.

Genus: The singular term for the word genera.

Hybrid: When one orchid is crossed with two parents that are of different species (sometimes different genera will cross, too, like Cattleyas and Brassavolas). These plants are easier to grow for beginners because they cover more ground in terms of mistakes. This happens because one parent plant could tolerate colder climates while the other parent is a warm-grower, your hybrid will be able to thrive in a wider window of temperatures. This opposite of hybrid is Species, a "pure-breed" so to speak. The species orchids will be very specific and more unforgiving in terms of mistakes.

Inflorescence: Everything that pertains to the flower. This includes the flower stalk, the bud, the peduncle, pedicle, blossom, and all reproductive parts of the plant. This term is important in terms of knowing what potency of fertilizer to use. If the inflorescence is being produced, you'll need one type of fertilizer, but if the orchid is focusing on roots and leaf production, you'll need a different fertilizer.

Keiki: A Hawaiian term translated as baby. For orchids, it means a baby orchid or new plant that is growing the side of the stem or pseudobulb. Do not take the keiki off the mother plant until it has three or four good roots and two functional leaves. If the keiki is underdeveloped, it cannot process the nutrients from the sun in a quantity that is sufficient and it will die. Read more about keikis in this article.

Kokedama: A Japanese floral design used with moss and a root ball to form a vase for orchids and other plants. The roots are wrapped around pieces of charcoal and moss is used to cover the roots, forming a cute, compact ball. The vase or pot becomes the moss ball, and this makes a unique and awesome floral design. You can read more about Kokedamas in this step by step guide.

Labellum: a petal that has a totally different shape than the other two. The labellum is most often the bottom petal, that opens up to form a landing platform for insects and pollinators. Sometimes the labellum will have a unique color, different than the other two petals. Labellum is also called lip.

Lip: another word for labellum. See above.

Lipophytic: This term describes the nature of the plant, as it likes to cling to rocks, pebbles, or onto cliffs. This is contrasted to epiphytic, growing on the side of tree bark, and terrestrial, that grow near to the surface of the ground on top of leaf litter and moss.

Medium: Whatever your orchid grows in. It can be pebbles, rocks, Styrofoam, bark, perlite, lava rock, charcoal, hydrogel beads (not recommended), and anything else that holds your orchid in the pot. The plural is medium, the singular is media. This article about the correct potting medium for each type of environment is a good place to start.



Meristem: actively growing tissue in plants, usually at the tip of a stem or a root. The meristem is where the undetermined cells haven't designated what they will be when developed, and it is from these cells that the petri-dish seedlings are formed. This is also the same term in nursing for cells that are used in cloning. When they are new, they haven't "been assigned" a specific anatomical part, and can be manipulated into growing or maturing into specific cells. This also happens with plants, and the meristem are the "undetermined" younger cells, which will later mature.

Monopodial: a type of orchid that grows vertical instead of horizontal. The long, slender and more compact version of a monopodial orchid grows upright and doesn't have pseudobulbs or rhizomes. The opposite of a monopodial orchid is the sympodial orchid, like Cattleyas.

Mycorrhiza: the name of the relationship between the fungus and the orchid seed. A specific fungus is needed for orchid seeds to live until they have developed roots and leaves. The symbiotic relationship between the two, orchid seed and fungus, is crucial for the seed to develop and mature into a healthy, adult plant. Without it, the orchid seed wouldn't be nourished, since it doesn't have an endosperm that stores food. Mycorrhiza is often used in making new seedlings in petri dishes, but this is just one method. Just a friendly reminder that not all bacteria or fungus are bad.

Node: Nodes are elevated bumps or notches on the flower spike that serve several purposes. One is to increase the orchid's natural defense system against outside invaders. If bacteria enter through the flower spike, it has a harder time getting past the node. Nodes are also useful to know where to cut the flower spike after your orchids have bloomed.

Osmunda: This is a fiber mat made from coconut hairs. They are very common in potting medium since they absorb a higher quantity of water than most other resources will. Be careful when using osmunda fibers as part of your medium. Recently, most osmunda fibers will have a high salt concentration and residue build-up will become a problem inside your media. The high levels of salt will also cause root burn faster.

Peat Moss: Peat moss is not the same as sphagnum moss. In general, stay away from peat moss. It is ground-up layer of sphagnum moss that covers the forest floors. Yet, it's not only sphagnum. It will have branches, old leaves, dead bugs, and everything else that falls onto that layer of moss before it's ground up into a fine powder. The only time you should be using peat moss is to make a fake background for your terrarium, because it fixates well to the glue making interesting arrangements. There is more information about why you shouldn't use peat moss in this article.

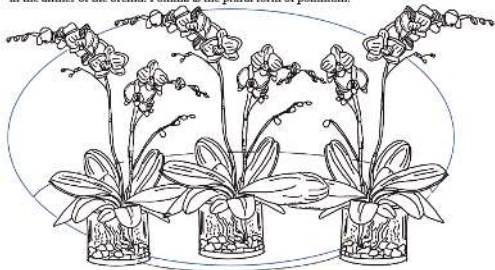
Pedicle: Part of the inflorescence that attaches the individual flower to the flower spike.

Peduncle: Part of the Inflorescence that attaches the branch of various blossoms to the flower spike. One peduncle can hold several pedicles on it.

Peloric: The norm for orchids is to have three back sepals (which are the bud's old petals), 2 petals, and 1 lip. Sometimes when the orchid gets a little confused during its formation, it can develop a lip that looks like a petal, or a petal that looks like a lip. This is called a peloric orchid. There is more information about peloric orchids in this article.

Perlite: A type of potting medium that looks like rough Styrofoam balls. Since it is non-organic material that won't decay over time, it makes for a great addition in your orchid media by creating air pockets to amplify airflow. Perlite is a volcanic glass that was heated to 1600° F (871° C) and because of its rough, porous surface, orchid roots attach well.

Pollinia: The collective pollen grains that hold together as a unit. Pollinia can be found in the anther of the orchid. Pollinia is the plural form of pollinium.





Pseudobulb: The storage unit of the orchid, usually enlarged and thicker than the rest of the stem. Only sympodial orchids have pseudobulbs, like Cattleyas, Oncidium, and Cymbidiums. Phalaenopsis do not have Pseudobulbs. Pseudobulbs are a sign that the orchid might live in a habitat where during some part of the year, the climate may not provide all the nutrients or water it needs, so the orchid adapted and produced its own "basement of extra supplies".

Resupination: This term applies to the turning movement in lip/labellum to its place. While inside the bud and still forming, the lip is actually on the top. It turns, or resupinates, moving to the bottom of the blossom. In female *Catasetum* orchids, the bottom lip actually doesn't turn as it should and forms a hood or cape which covers the flower. This lack of turning is called non-resupination. It comes from the Latin, *supine*, or "on your back" which is a term also used in nursing/health care.

Rhizome: The rhizome is a stem that is laid horizontally, and its growth is always out laterally instead of upward. This makes a bushier plant that occupies larger width pots. From the rhizome, the root, eyes, pseudobulbs, and new growth appear. Monopodial orchids like *Phalaenopsis* do not have a rhizome.

Sepal: A sepal is one of the structures that looks a lot like a petal, but isn't. If you look closely at the orchid, you'll see three outer petals that used to be the bud. These sometimes mimic the same structure as the petals, but they really aren't. Each orchid has 3 sepals, 2 petals, and 1 lip.

Sheath: A sheath is a protective covering that envelops a new flower. Not all orchids have sheaths, but the best example is a *Cattleya* orchid. Before the bud opens, it is sensitive to temperature changes, loss or increase in humidity, and light. The orchid needs to protect this new flower so it develops what looks like a malnourished protective coat. Sheaths don't always cover flowers, they can protect new leaves, too.

Sphagnum Moss: A type of moss that works best for orchid cultivation in pots. It is highly absorptive, which makes the water retention linger longer in the pot. There is an entire article just about sphagnum moss here, where I talk about the 10 reasons why it's a good idea to use sphagnum moss.

Spanish Moss: Used a decorative layer of moss in floral decorations, Spanish moss is not as water retentive as sphagnum moss. It will dry out faster and is not appropriate to use in the potting media. Some orchid enthusiasts use Spanish moss as a top layer, to retain humidity from the air longer around aerial roots.

Spike: This is sometimes confused as a new root when it first appears on a Phalaenopsis orchid, but it will produce flowers and not roots. The flower spike will emerge from the sides of the leaf and have triangular, hard notches at the end, which don't turn greener or whiter when watered. Their color remains the same. A new root will have a rounded end and eventually point down to the potting media or out to the side. A flower spike will naturally grow toward the light source.

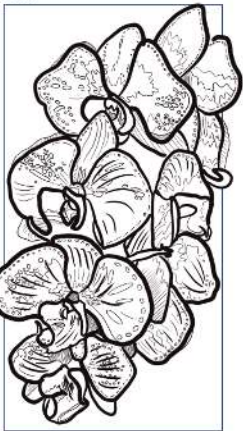
Stamen: the female part of the flower, similar terminology to the stigma.

Stake: A guide that can be bamboo or metal that you insert in the potting medium to stabilize the orchid. This is necessary when orchids become top-heavy or tend to lean to one side. It is also done when the orchid has a flower spike, inducing the spike to grow and curve the way you'd like it to.

Stem: This is the equivalent to the rhizome in a sympodial orchid, but in a monopodial orchidlike Phalaenopsis, the stem is where all life from the orchid will emerge. You can grow back an orchid with no leaves, or one with no roots, but it's almost impossible to bring back an orchid with stem rot, or that has had damage done to the stem.

Stigma: The female counterpart of the flower, receives the pollen and prepares it into a seed pod. Also called the pistil.

Stomata: This is the breathing mechanism of the orchid found mainly in the leaves. They are sometimes referred to as pores. There are more stomata on the underside of the leaf, where gas transfers occur during the night, expelling the gases that orchids don't need and absorbing gases in the environment they need for consumption. If there isn't enough humidity in the air, the stomata remained closed and there is no gas exchange. This causes toxic build-up in the leaves.



Stigmatic Surface: This is the female counterpart of the orchid and refers to the entire surface where pollinia can be attached. It can have a special sap to it, while other orchids don't.

Sympodial: "Sym" means many, as this refers to the many "stems" or "pseudobulbs" these orchids have. Sympodial orchids have a rhizome which all the new pseudobulbs and roots grow from. This rhizome sits above the potting media and grows out horizontally, covering more ground across the pot. This makes for a shorter and bushier plant than compared to the long slender Phalaenopsis orchids, which isn't a sympodial orchid. The contrary of sympodial is monopodial, like Phalaenopsis and Vanda orchids, which grow vertically instead of horizontally.

Throat: The throat is a general term used to identify everything leading from the lip of the orchid to the middle portion where the reproductive organs are found. It isn't a technical term, just a generalization, meaning the center portion near the middle of the orchid's lower petal, named labellum. From the landing platform which the lip provides, the pollinator heads toward the throat of the orchid to get pollen.

Transpiration: This is a process where water droplets escape the pores of the orchid, called stomata. If this process is done more rapidly than the orchid absorbs water, than dehydration sets in. If the orchid is waterlogged and absorbed more water than it can transpire, than the leaves puff up and the outer cells die, a process called edema.

Unifoliate: "Uni" means one, and foliate means leaf. In essence, this means a one leafed plant, but what it's really talking about is there is only one leaf per pseudobulb. Cattleyas are both unifoliate and bifoliate, depending on their species. The care for both unifoliate and bifoliate plants is the same.

Velamen: This is an outer protective coating of the orchid root, maximizing the surface area where roots can absorb water and nutrients. The actual root is a string-like structure, that is very tiny. The velamen is a thin layer around that root, practically duplicating the surface area it has to capture nutrients that come floating by in the wind. The velamen's color is how we determine whether or not it's time to water again. If the velamen is green, leave the orchid alone. If the velamen is silvery-gray, it's time to water.

This brings us to the end of the terms used in orchid care! If there is something that wasn't mentioned here, please get in touch and I'll add it as soon as I can.

Happy Cultivating!



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