

R&R Orchids

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Culture

Indoor Culture

Please see Michael Wiley’s indoor Vanda culture page [here](#).

Light

Vandaceous orchids require higher light ranges than most other orchids. If you are used to growing common phalaenopsis orchids from your local big box, you’ll need to find a brighter location. With that being said some Vandacesous orchids that can take full sun while others require more shade. Always ask your grower or research specific requirements for your plants.

While the sun requirements can vary by species, strength of light can vary location, and with seasonality an eastern or south eastern location will suit your Vandas best. Vandas can take morning sun but during the strong mid-day and afternoon hours they want a dappled light, think under a tree with some light peeking through the leaves. Several options in shade screen are also



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available and 50%-60% is recommended for most tropical areas, for reference pool screen is only 20%.

Not giving your Vandas enough light will give you beautiful plants that never or rarely bloom. If you find yourself in this situation slowly move your plants into a brighter location. Too much light will burn your leaves so transition them slowly and check them often.

Water

Vandas do not have pseudobulbs nor are they typically grown in a potting media like other orchids. Therefore, they require watering more often to stay hydrated. Warmer temperatures or lower humidity will require more frequent watering. If you're thirsty they're thirsty!

During the wintertime when the temperatures are lower you can water once a day. As the temperature increases or in lower humidity months you should increase your watering schedule to twice and even three times a day. Drench your plants till the roots are thoroughly soaked and water is running off the plant. Do NOT mist your Vandas. Make sure when you water your plants that they have plenty of time to dry off prior to sunset, no wet plants at nighttime.

Bucket watering should be avoided. By sharing water, you increase the risk of sharing funguses or diseases between your plants and risk damaging your roots.

Sprinkler systems can be used to help automate your watering. There are several options available for you to choose from. Newer models even allow for timer settings. Regardless of your choice look for a metal sprinkler bar so that it lasts as long as possible.

Fertilizer

All orchids love weekly fertilizing. There are many fertilizers available today, but our recommendation is DYNA-GRO, both the Grow and Bloom variety are readily available online, at one TSP per gallon. Avoid fertilizers that have the



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word Orchid in them. Their chemical makeup is similar or even worse (quite often missing the micronutrients that DYNA-GRO has) so you are only paying more for the word Orchid.

Fertilize weekly, three times with DYNA-GRO Grow and then once with DYNA-Gro Bloom. Your orchids will thank you.

Pump sprayers can be used to aid in your fertilizing. Pump sprayers come in many varieties, hand pump or electric, one to four gallons, hand carried or backpack. Choose the best one for your personal needs. Or you can use a hose attachment like the accurate Ortho Dial-n-Spray.

Tips and Tricks

Vandas love warmer weather. Temperatures below 50 F will quickly damage and kill your plants. Because of this wintertime is trying time for all Maniacs. You'll quickly learn the orchid shuffle, bring them in on colder nights and back outside on the warmer days.

If you are unable or unwilling to move your orchids in from the cold Epsom Salt can be used for cold damage prevention. Add 1 TBS per gallon of water one or two days prior to the cold weather. It's still best to bring your orchids inside or provide heat to their growing area on cold days and nights.

Cut your blooms spikes as the flowers begin to fade. Once one or two of the flowers have died and fallen off, cut your spike with a sterilized tool and put them in a vase inside. This can seem counter intuitive since we are growing our orchids to be rewarded by their beautiful flowers. Flower production uses a large amount of energy and nutrients. By removing them before they fade your plant will now place that energy into new root or growth production, creating keiki's (Hawaiian word for babies, pronounced kay-kee). Allowing them to get bigger, healthier, and give you more flowers next time. Sometimes they will even give you a second spike immediately afterwards for an instant reward!



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Sterilize all tools and scissors prior to cutting, repotting, or separating your orchids to avoid cross contamination. You can use Physan 20, alcohol, bleach, heat, trisodium phosphate, or single use razors work great as well.

If you need to remove yellowing leaves split them down the middle and rip them off each half at a time. Also wear gloves to avoid spreading disease or funguses.

Plastic tags can often lose their picture or writing over time leaving you lost on the ID of your orchids. Use metal tags to have a name that lasts forever. Avoid attaching your tags to baskets as the roots will quickly overtake the tag making it unreadable.

Roots are one of our favorite things on Vandas. Some will argue they are even better than the flowers themselves! Good root tip growth is a sign of good watering habits. Cracked roots are ok. You do not need to worry about roots getting sunburned. You can cut roots that are brown or getting too long, but it is not necessary.

If you are going to cut your roots, soak them first for twenty mins in a 5-gallon bucket with a mixture of Physan 20, 1 TBS per gallon. Cut the roots under the water and soak for an additional twenty minutes.

Disease and Fungus

Preventative Treatment ("The Cocktail")

The best way to treat a disease, fungus, or pest infestation is to avoid getting it in the first place. An ounce of prevention is worth a pound of cure! You'll often hear Maniacs talk about "The Cocktail". This is a preventative measure to keep all your orchids, not just Vandas, healthy and safe.

What is it? It's a mixture that treats and prevents thrips/bugs and funguses and works both topically and systemically. When should you use it? Use it for your outdoor plants only, every six to eight weeks. Use a pump sprayer, not



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the Ortho Dial-n-Spray, and do not use the same pump sprayer you use for your fertilizing.

All ratios are per gallon.

- Orthene ½ TSP
- Banrot ½ TSP
- Spreader Sticker 1 TSP
- Dithane or Protec DF 1 TBS

Always protect yourself when using any chemicals. Work with the wind at your back and work front to back. Use a painter's respirator (from 3M or similar), painter's full outfit (with booties and hood) and nitrile gloves. All of which can be bought at Home Depot or online.

The day prior to applying The Cocktail it is recommended to not water. This ensures your plants are thirsty and absorb as much of the mixture as possible, part of the mixture is systemic. Apply it twice back to back just until you get run off from the roots. Do not water or use Physan for 24 hours after to avoid rising off the products.

Funguses and Diseases

Diagnosing what is wrong with our orchids can often be difficult. Always feel free to post pictures of your plant and close ups of the symptoms and ask for help on the Facebook Vandamaniacs page, linked below.

[Vandamaniacs](#)

Also here are some websites that have great information to help aid in your diagnosis.

[Staugor Orchid Society Pests and Diseases](#)

[AOS Pests and Diseases](#)

Funguses love moisture and warm weather. The same exact thing our Vandas love! If possible, make sure that your plants dry out thoroughly after you water. When your plants live outside this becomes difficult to do in humid



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rainy seasons. If you notice issues with your orchids give them a close inspection. Does this issue appear to have a texture? Run your fingers over it (don't touch any other plant without washing your hands first). Do you feel raised lesions? Do you feel sunken spots? Does it feel rough like sandpaper? (Information below provided by Sue Bottom "Orchid Pests and Diseases")

1. Bacterial Brown Spot cause by Acidovorax (Syn. Pseudomonas) – This appears differently on Vandas compared to other orchids. It will usually start in the crease of the leaf along the spine and can progress to the underside. Often this appears quickly after heavy rains.
2. Thai Crud caused by Guignardia – Spores will be present on raised diamond shaped lesions that feel like sandpaper. These spores are what spread the disease. Usually this will start as Phyllosticta (same fungus just in a different stage – see below).
3. Phyllosticta – Spotting from phyllosticta may start anywhere on the leaf or pseudobulb. The lesions are tiny, yellow, and slightly sunken. As they enlarge, they become round to oval and more sunken, especially if the infection is on the leaves. With age they turn tan to dark brown and develop a slightly raised, red to purple=black margin. Eventually, tiny, black, raised spore structures develop in the center of the spots. Individual spots are about ¼ inch across. Severely infected leaves may drop prematurely. Its presence may indicate insufficient light. This blight can also be named Guignardia; the names apply to two different sexual stages of the same fungus.
4. Leaf spotting fungi – The fungi penetrate the plant openings particularly during periods of warm temperature and leaf wetness. The fungi produce toxins that kill the host cell and the lesion is sometimes surrounded by a yellow halo. The disease is spread from spores on the discolored part of the leaf. Treat affected leaves with copper, quaternary ammonium compounds or other specialty chemicals like thiophanate methyl.

"The Cocktail" will treat all the above-mentioned common issues.



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Chemicals and Treatments

Physan 20

<http://www.physan.com/orchids.html>

Physan 20 is a broad range disinfectant, fungicide, virucide, and algaecide which effectively controls a wide variety of pathogens on hard surfaces and plants. Its applications include greenhouses, cut flowers, decorative fountains, pools, bird baths, and plants.

It is a topical solution, not systemic, and only for surfaces. It is best to use it on its own and not to mix it. Do not mix it with fertilizers.

Zerotol

Zerotol cleans and helps with fungus (similar to Physan 20) use 1 TBS per gallon.

Orthene

Orthene is both a systemic and a topical insecticide.

Dithiane or Protect DP

Dithiane or Protect DP are both topical fungus and disease control solutions.

Banrot

Banrot is both a systemic and a topical broad-spectrum fungicide.



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Links and Purchasing Info

[The Vandaman Website](http://thevandaman.com) (thevandaman.com) – For the best quality and selection of Vandaceous orchids in the United States.

More items coming soon!

Glossary (from aos.org)

adventitious bud — Meristem originating from a single cell or group of cells not part of preexisting meristem.

adventitious propagation — The use of tissue culture to produce whole plants from adventitious buds. Can lead to high levels of somaclonal variation, unlike micropropagation.

aerial root — Any root produced above the growing medium.

anther — The part of the stamen containing the pollen; the end of the column.

axillary bud — Preexisting meristem within the axil of a leaf that is normally inactive in growth.

backbulb — An old pseudobulb behind the part of a sympodial orchid that is actively growing. Although there may be no leaves the presence of undamaged "eyes" is a sign that growth is possible.

bifoliate — Having two leaves.

cane — An elongated pseudobulb, usually used when describing Dendrobiums.

crock — Small pieces of broken earthenware or flower pots, placed in the bottom of a pot when repotting to aid in drainage.

cultivar — An individual plant and its vegetative propagations in cultivation; a horticultural variety.



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diploid — A plant with two sets of chromosomes. The normal condition.

epiphyte, epiphytic — A plant which naturally grows upon another plant but does not derive any nourishment from it. Many of the orchids in cultivation are epiphytic.

eye — The bud of a sympodial orchid that will eventually develop into a new lead.

foliar spray — Many minor nutrients and trace elements beneficial to growth are best absorbed through the stomata of an orchid's leaves when mixed with water and sprayed on the plant.

genus (pl. genera) — A natural grouping of closely related species.

habitat — The type of place in which a plant normally grows.

hybrid — The offspring of a cross between species or hybrids.

inflorescence — The flowering portion of a plant.

intergeneric hybrid — A hybrid between members of two or more genera.

keiki — A Hawaiian word referring to a baby plant produced asexually by an orchid plant, usually used when referring to Dendrobiums or Vandaceous orchids.

lead — An immature vegetative growth on a sympodial orchid that will develop into flower-producing structure.

lip — A modified petal of the orchid flower specialized to aid in pollination and different than the other petals.

lithophyte — An orchid that grows on rocks.

maniac — A member of the Vandamaniac group. A cult like family brought together by their love of Vandas and each other.

medium — The material in which an orchid is container-grown, it may be organic such as fir bark or inorganic such as lava rock.

mericlone — A plant derived from tissue culture that is identical to its parent.

meristem — The actively growing area of the plant from which mature tissues such as leaf, stems, flowers and roots originate.



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micropropagation — The use of tissue culture to grow inactive axillary buds into whole plants with very little somaclonal variation, unlike adventitious propagation.

monopodial — Orchids which grow upward from a single stem producing leaves and flowers along that stem.

monster — A large well grown orchid. Typically, years in the making.

node — A joint on a stem or pseudobulb from which a leaf or growth originates.

panicle — An inflorescence with a main stem and branches, the flowers on the lower branches open earlier than the upper ones.

photosynthesis — The process a plant uses to produce carbohydrates and sugar from water and carbon dioxide in the air using chlorophyll-containing cells exposed to light.

polyploid — A plant with more than the normal two sets of chromosomes.

pseudobulb — A thickened portion of the stem of many orchids functioning as a water and food storage device.

raceme — An unbranched inflorescence of stalked flowers.

rhizome — A root-bearing stem of sympodial orchids that progressively sends up leafy shoots.

rpm — Root porn Monday. A day of the week when maniacs show their perverse obsession with the root tips. Just the tip!

scape — An unbranched inflorescence with one flower.

sheath — A modified leaf that encloses an emerging inflorescence or leaf.

somaclonal variation — Genetic variants arising from tissue culture.

species — A kind of plant that is distinct from other plants.

spike — An unbranched inflorescence of unstalked flowers.

stem propagation — See micropropagation.

stolon — A branch that grows horizontally above the medium and produces roots and shoots at the nodes.



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stomata — The breathing pores on the surface of a plant's leaves.

sympodial — Orchids which grow laterally and produce leafy growths along a rhizome.

terrestrial — Growing on the ground and supported by soil.

tetraploid — A plant with four sets of chromosomes. A normal plant is diploid with two sets of chromosomes. Most modern complex orchids hybrids are tetraploid. Compared to diploids, tetraploids general have larger, fuller and heavier substanded flowers.

tissue culture — The technique of culturing cells on a sterile synthetic media. There are two general methods use to propagate plants -- micropropagation and adventitious propagation.

unifoliate — Having one leaf.

velamen — The thick sponge-like covering of the roots of epiphytic orchids which helps prevent water loss and aids in absorption.

virus — A type of infectious agent, much smaller than common microorganisms, several forms of which affect certain kinds of orchids.

