## How and when Do I Water My Orchid?

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It seems like such a simple question. Yet more orchids are killed by improper watering than any other reason. If you research your particular orchid online, you may find a variety of answers to that question. Why is this so?

WHEN? Most of the orchids that are grown are epiphytes. They don't dry out and wilt immediately like the annual bedding plants will. The roots have a spongy layer on them that absorbs and holds water on the roots and the leaves have a stronger structure preventing collapse in drier periods. It's all about understanding the drying cycle needed for epiphytes. Some orchids have large storage vessels which are named pseudobulbs and others none, so another factor of when to water. If kept wet and if they are submerged in media, they can rot easily. And depending on the orchid and its natural habitat, this cycle of drying can vary depending on the time of year. The more active the growth of the plant is, the higher the need for water. Winter time usually has slower growth, so you must allow for longer periods of drying for most plants due to the cooler temps and less sunlight. Plants like Phaleanopsis and Vandas don't have pseudobulbs, and grow all year, so they may need more watering whereas Cattleyas do better even drier in winter as they slow down and have reserves to handle that.

One of the factors of the root wetness is media. Media varies quite a bit. There is no perfect media or mix. You have to learn what works in your environment and find what you like to grow in. Indoor growers might need media that retains water longer than greenhouse growers with higher humidity. You will have to adjust to the media and needs of each plant.

Below are before and after watering images. On the left are healthy green tips of the roots and the root surfaces are a light gray. On the right the roots have turned green after watering. If the roots remain brown and don't change color, they are not absorbing the water and are possibly dead roots or have significant rot.



Age of the media will also affect how long between watering. As it breaks down, it will stay wet for a longer time. The amount of drainage in the pot and size of drainage holes can slow or speed down the time. Sphagnum moss can retain water for a longer time than bark. Having clear pots as shown above are a good way to visually tell about how dry the plant is. You can also gauge by the weight of the plant when first watered and after it dries. If you have a wooden dowel or skewer, place it deep into the pot and look at how wet it is. Sometimes if the plant has been in the media for a long time, removing and inspecting the roots can provide a lot of information about the health of the roots and the status of the media. You might be surprised at what you learn and also discover many plants that need to be repotted.

It is usually best to water in the morning as this allows time for the plant to dry on the leaves which especially during the winter months, reduces the risk of infection or fungus. Again, the amount of time between watering depends on the media, how it is grown – mounted, basket, in a pot, and the humidity of the environment. Indoors with the heat on dries it out quicker.

**HOW?** I often am asked if orchids should be soaked in water or water poured in them. As the media ages, more material accumulates in the media including the salts from fertilizers applied. It is very important to thoroughly flush out the debris and salts at least once a month to remove these. Soaking doesn't do this, so a good amount of water flowed through the media is best. Mounted plants don't have this issue as much, but a good rinse helps them also.

Avoid wetting the leaves as much a possible during cooler times and on overcast days. The plants can't absorb the water as well and extended times of wetness on the leaves and crevices will leave them more susceptible to disease. Air movement really helps with this. Fans are great if possible.

As the seasons vary, so does the need for watering. When in doubt, try less water with greater times between watering when cooler and darker times. When the plant is growing rapidly and warmer temps and brighter conditions, they will be able to use the more frequent water. Some plants require a rest period of no water, so it is best to do some research and learn of your plant's needs.

It's a process of learning and feedback from your plants. Enjoy the journey and happy growing.