

Orchid Basics

(Pots, Media, Repotting, Tools)

HOW TO CHOOSE AN ORCHID POT

The big differences between standard garden pots and those used for orchids are the number and size of drainage holes in the container and a larger diameter bottom. Orchid pots have larger holes and more of them, both in the bottom and sides of the pot, to ensure better drainage and air flow.

In general, if your orchids tend to dry out too often, use plastic pots rather than clay and use a fine potting mix. If you tend to be a heavy waterer, use clay pots with a coarse mix or a media that holds more water.

Types of orchid pots include:

Unglazed clay pots allow more air to the roots, especially "orchid pots" with extra airholes, but orchid roots tend to get stuck to them, so that getting plants out of them is difficult. To unpot an orchid from a clay pot, run a knife around the inside of the pot, or even break it. Clay pots will tend to dry out faster than plastic ones.

Plastic Plastic pots are cheap, light, and available in multiple sizes and colors.

Some people prefer plastic over clay pots because they offer better water retention. They don't dry out as fast.

Clear plastic, which allows light to reach the roots and enables you to observe root growth. It has been shown that with the light able to pass through to the roots that the chloroplasts can use the roots to create sugar for the plant.

Net pots are made of black plastic mesh. These pots are reminiscent of the green strawberry baskets from the produce section of the supermarket.

Large pots with a net basket insert upside down for great drainage and air circulation... Richards Tip

Baskets these allow lots of air to get to the roots, but tends to make plants dry out more quickly.

Wooden baskets, usually constructed of teak or some other rot-resistant

When potting in a basket, line the basket with sheet moss, and then add your potting mixture.

For orchids such as Stanhopea where the flower stems grow downward through the pot and come out the bottom, these have obvious advantages!

Joanna's Clay Baskets

They dry very quickly and are a good choice for people who get a lot of rain during rainy season. They don't rot like traditional wood baskets so plants can really over-grow the basket and become specimen size without the risk of the basket decaying. I tell people that with the shallow ones especially, I am trying to blur the line between a pot and a mount and create an environment similar to what is natural for the plant -quick drying but still offering a little moisture retention and root protection.

Dual Core Orchid Pots - new item -

The inner core pot is a heavy-duty net pot which fits down into the outer pot which has a slightly raised center dome and an air gap to exist between the pots.

The result of all these features is to create a growing environment that enhances humidity in the space between the two pots, on the sides and at the bottom. Air flow is significantly improved which reduces potential root rot while increasing humidity. A further advantage of this design is that it contains the roots inside the pot by encouraging root growth "around and down" rather than over the top of the rim. Oxygen is key to happy roots.

Glazed Pots

These can be used if there is enough openings in the walls of the pot to grow their plant. Some like to use them to display their plants in the home only by inserting a plastic pot inside then removing it and the plant back to the growing area.

Whether you choose clay or plastic, make sure that your orchid pot is rigid and strong enough to support top-heavy blooms.

Mounting

Since most orchids in the wild grow as epiphytes, growing on tree branches, orchids are often mounted on slabs of bark, particularly cork bark, or pieces of tree fern fiber. These plants tend to need daily watering. It's very difficult to get plants off of a slab without significant damage to the root system, so if they outgrow their current slab a useful repotting technique is to tie the current slab in front of a larger one with fishing line.

Here are some common orchid potting media.

Coconut husk chunks

Retains moisture while also providing sufficient air
Slower to decompose than bark Must be rinsed thoroughly to remove any salt residue
Smaller grades may retain too much moisture

Coconut husk fiber

Retains water well
Decomposes slowly Does not drain as well as bark or coconut husk chunks

Tree Bark

Orchiata

This is the bark of the Fir Tree in New Zealand. It is treated with a coating of Lime to stabilize the ph and slow the media breakdown. It can be bought in several particle sizes.

Redwood Bark

Lasts longer than other barks. Generally, holds more moisture. Getting hard to find.

All barks are not the same! The best ones are hard and clean with uniform size and is slower to break down.

Pick one that is especially made for orchids. Don't buy landscape bark.

Relatively Inexpensive

Available in many grades (sizes) Can be difficult to wet

Hardwood charcoal

Very slow to decompose

Absorbs contaminants Holds very little moisture

Can be dusty to handle. Wash well before using

Lava or Volcanic rock

Never decomposes

Drains well Heavy

Perlite (sponge rock)

Lightweight

Be sure to get the horticultural grade that is coarser.

Can be very dusty. Rinse in the bag before using. This will keep you from breathing in the dust.

Provides good aeration and water retention

Inexpensive

Retains too much water if used alone

Sphagnum moss - New Zealand Sphagnum Moss

There is a HUGE difference in the quality of this moss. The domestic product is usually of fair to poor quality.

Get the top grade from Chile or New Zealand. It is cleaner and has longer strands. It also doesn't breakdown as fast.

Retains water and air

Readily available. Phalaenopsis and Paphiopedilum grow well in this medium, IF YOU ARE CAREFUL NOT TO OVER-WATER. It is also used frequently to pot up orchids with few roots to stimulate re-rooting.

"LECA" Aliflor or Hydroton

"LECA" means Lightweight Expanded Clay Aggregate. LECA pebbles "wick" the nutrient solution up to the plant's roots gently and evenly

Are little expanded clay balls. Easy to use and never decay or decompose. It can be sterilized and reused.

Tree fern fiber

Rapidly draining

Slow to decompose

Low water retention

Slabs of it are frequently used to mount orchids.

Cypress Mulch

Purchase from the big box stores and mix using 3 parts cypress to 1 part (extra-large) sponge rock (perlite). You should wet the sponge rock before dumping from its bag so as not to breathe in the damaging dust.

The advantages of using this mix is that the pH level is around 6.5. One does not have to repot for 4 - 5 years and if repotting due to growth, keep the same mulch in the new pot and just adds more.

Use it straight from the bag. Pick out the large pieces. Keep the pieces smaller as the roots like to grow and anchor around them.

Experiment by adding to other mixes depending on the orchids needs. Adding sphagnum, charcoal or whatever other media you may use.

According to Washington State University, cedar or cypress chips repel, kill or can inhibit insects like termites, cockroaches, carpet beetles and certain ants. Spread cedar or cypress mulch around your garden or landscape plants to keep insects away. The wood of these trees is also resistant to decay, allowing it to last longer than other mulches. One of the benefits of cypress bark is nutrients are added as the wood decays.

Figuring out which potting materials are best

The individual potting materials are rarely used by themselves — they're usually formulated into mixtures, so the final product will retain water, drain well, and last a reasonable amount of time.

The combination of potting materials that will work best for your orchid depends on various factors. Ask yourself the following questions to get an idea of what you need:

* **How often do you water?** If you tend to be heavy-handed with the sprinkling can or hose, use materials that drain well and decompose slowly.

* **What type of an orchid are you growing?** Some orchids that naturally grow on or in the ground, called terrestrials, usually prefer to be kept slightly damp all the time, while those that live in trees, called epiphytes, or grow on rocks, called lithophytes, want to dry off thoroughly between watering's. When you look at catalog listings or search for information on the Web about your particular orchid, look for these terms to see what growing conditions suit them best, or ask the grower you're buying from.

* **How mature are the plants?** Large plants usually do best in coarser potting materials and smaller plants do better in finer potting materials. (See the following sections for potting mixes of varying degrees of coarseness.)

* **How big are the roots of the plants?** In general, smaller roots grow better in finer, more water-retentive materials, while larger roots perform best in coarser materials.

Recommending specific potting mixes or formulations is a risky thing to do because there are so many opinions as to what works best. In truth, many different mixes will work. The most important thing is to match your watering habits to the potting material you use. If you are a heavy and frequent waterer, use a more porous, well-draining mix. If you tend to water less frequently, use potting mixes that contain higher percentages of some of the more water-retentive materials talked about earlier.

Keep your watering habits in mind. If your orchids tend to dry out too often, use plastic pots rather than clay and use the fine mix. If you tend to be a heavy waterer, use clay pots with the coarse mix.

Fine mix

4 parts fine-grade fir bark **or** fine grade pine bark, **or** fine-grade coco husk chips **or** redwood bark
1-part fine charcoal

1 part horticultural-grade perlite **or** small-grade Aliflor

This mix works well for smaller plants of all types of orchids, most Oncidiums, Miltonias, and any other orchids with small roots that like to stay on the damp side. For slipper orchids add 1-part peat moss.

Medium mix

4 parts medium fir bark or medium coco husk chunks

1 part medium charcoal

1 part horticultural-grade perlite or medium-grade Aliflor

This is your middle-of-the-road mix. If you aren't sure which mix to use, try this one. This mix is also good for Cattleyas, Phalaenopsis, and most mature orchids.

If mixing your own is not your thing

If you'd rather just buy your mix ready-made, potting mixes are readily available from most places that sell orchids, including home-improvement stores. The mixes that they sell are very similar to the ones I outline in the preceding section. Most contain fir bark, perlite, charcoal, and sometimes some peat moss and are suitable for most orchids.

Note: Most potting mix should be soaked or rinsed off in a colander before use. This will remove any little particles that may have built up and wets the mix so it's less "shocking" to the orchid upon repotting it. Do not rinse Orchids as it is coated with lime.

When I use, Sphagnum moss I like to soak it, squeeze out extra moisture and then fluff it up again before putting it the new pot. If you use bark just rinse it off in a bucket.

When using a mixture thoroughly water after repotting.

Repotting Orchids

How do I know if my orchid needs repotting?

Orchids cannot stay in the same mix forever, depending on the type and age of the plant and the media. Orchids should be repotted every 1 to 3 years. Paphs. like to be repotted.

When you buy a new plant, it may have been in the same medium for a long time already. A good rule of thumb is to repot a new orchid as soon as practical after it is purchased. Usually this means when it goes out of bloom.

Orchids need to be repotted before their media breaks down and smothers the roots. Without timely repotting an orchid will slowly decline with its growth rate and flower count reducing.

When is the best time to repot my orchid?

Orchids are best repotted when they are in active growth. Orchids are usually in active growth shortly after blooming when they send out new shoots and/or leaves and new roots begin to form. Be careful not to break the tips of the growing roots or the new growth of the plant.

Phalaenopsis are very forgiving and can be repotted just about any time they are not in bloom. On the other extreme, Dendrobiums prefer to be repotted only as new growth appears.

There will always be instances when an orchid must be repotted immediately (for example if the pot breaks, or the media is severely decomposed) in which case be as gentle as you can.

Spag-Bag for divisions

- TIP FROM RICHARD - Divisions from plants can often be coaxed onto putting out a new growth and roots by bagging. Use the long clear bags that the newspaper comes in (others will work).

A little Sphagnum moss to keep moisture inside the bag.

Make sure there are 2 drain holes in the bottom and one small hole near the top. Do not place in direct sun...under the edge of a bench is ok.

Tools

Wire pot clips

- After repotting a plant, it is often wise to “anchor” it firmly so it cannot wobble around. They hold the plant until the roots anchor the plant in position.

Pot clips come in two basic varieties...and then those are available in different sizes depending on what size pot you're using.

This first one is used for pots with thinner walls, like plastic pots:

The second is for pots with thicker walls, like clay pots.

They're rather easy to use. Pot your plant, then place the end of the clip in between the bulbs/canes/rhizomes and slip the other end over the edge of the pot. It will hold the plant in place while it is establishing itself.

Plant Stakes

- Whether you prefer wood, plastic, galvanized wire, stainless steel (non-rusting). Plants may move too much in the wind or are too heavy. The main purpose for staking plants is to provide support for the plants holding the leaves upright, not sprawling. This helps with air circulation, gives more room between the plants and keeps the leaves from being caught and breaking.

How to Stake Blooming Orchids

Flowers and spikes of orchid blossoms can be heavy and, if they aren't staked properly, they'll open at an awkward angle. Orchid staking techniques vary somewhat with the type of orchid.

The two major types are the spray orchids, like phalaenopsis and oncidiums, or those with single flowers or just a few on one spike, like cattleyas and most paphiopedilums.

1 - As soon as the flower spike is about 12 inches (30 cm) long, insert a vertical bamboo stake close to where the spike originates at the base of the plant.

2 - As you insert the stake, twist it to work it around roots to minimize damage to them.

3 - Attach the first tie on the lower part of the spike close to the first *node* (the bump in the flower stem). Use twist-ties, Velcro or plastic spring clips not sharp string or wire, which could damage the stem.

4 - Attach another tie a few inches higher on the flower spike.

5 - Put additional ties every few inches as the flower spike grows.

6 - Place the last tie a few inches below where the first flower buds are forming. This allows the spike to form a natural arch with the first flower open at the highest point and the others gracefully following suit right below that one.

Plant ties

Velcro Plant Ties - A quick, easy-to-use solution for staking and training small, delicate plants. Simply wrap the plant tie around the plant and post, stake, or trellis. Then simply press to secure in place.

Green Plastic Tape - Strong, stretchy, long lasting, Green ribbon stretches with plant growth. Vinyl tape used for training and staking plants.

Twist Ties - Plastic coated wire with Cutter. Used for training and staking plants

Plant Clips - The clip gently supports orchid flower or spike and holds it in position. Being a spring clip, they can be easily removed or fixed with no harm as the flower and stem grow.

Hemostats - Used to reach in the plants to pull the twist ties or plastic tape between the plant canes or pseudobulbs that you cannot reach with your hands to hold upright the leaves of canes.

Tags

Plant Tags - 4 Inch Plastic Plant Labels, should be UV resistant. However, all the plastic ones become brittle and fall apart in time

Aluminum Plant Tags - Easy to write on both sides with a regular ballpoint pen. This label should last forever. It also is attached by a wire tie so it will not come loose unless you remove it.

Writing on labels.

Most permanent is pencil if the label is not too slick. Best is an art pencil, 2B.

If you have the slick labels, the main permanent is the SHARPIE

Division tools

Clippers - Ideal for delicate work on orchids. Suitable for right or left hand use.

Razor Blade - Works well removing Kiki's (new sharp)

Pruning saw or Serrated knife - Helps cut through larger plants when dividing

Disinfection is the process of eliminating or reducing harmful microorganisms from inanimate objects and surfaces. This is used on benches, tables and growing area.

Disinfect with Chemicals:

You can use a solution of one part chlorine bleach and nine parts water. Or you can disinfect your cutting tools with a rubbing alcohol. Soak in the mixture for at least 20 minutes, unless it's drinking alcohol (Gin or vodka), soak it in that solution for an entire day. Then, rinse the tools with clean water. Finish the bottle while waiting all day.

Bleach is a chemical that acts as an oxidizing agent, the oxidizing properties of bleach accelerate rusting of your metal tools

Sterilization - refers to any process that eliminates, removes, kills, or deactivates all forms of life and other biological agents (such as fungi, bacteria, viruses)

This is used mainly on tools (clippers, razor blades and knives) and pots.

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Sterilization by flame

Light torch and place the blades of your cutting tools in the flame for a few seconds on each side. After that, put the tools on a paper towel and let them cool. You can proceed to trim your orchid after the tools have cooled.

If the blades of your cutting tools have special coatings, you should not use this method to disinfect them, because the heat may cause damage to the coatings.

Torches

Bernzomatic - Push-button igniter kit uses propane fuel. Pressure-regulated torch head ensures consistent flame.

Butane Micro Torch - Cream Brule - Judy's Tip

Features a built-in push-button igniter, micro flame torch

