



REPOTTING

When to Transplant

Generally, it is impossible to tell if a plant needs repotting without examining the root system. Slide the plant with the root ball intact, out of its container. If the roots form a thick, dense mat occupying the bottom 2/3 to 1/2 of the soil ball, then the plant is ready for repotting.

There are other factors, which will indicate the need for repotting, but none of these are, on their own, sufficient reason to repot, without first examining the root system:

1. When a plant is "tippy" and looks out of bounds in a pot.
2. When a plant has been kept in the same container for a long period of time and, during that period of time, has shown considerable growth of foliage.
3. When you need to water frequently (every other day) because the volume of soil is small in relation to the size of the plant.

Abundant roots on the soil surface are not necessarily an indication that a plant is pot-bound. Some varieties, such as Ficus Benjamina, tend to show exposed roots; also improper watering (watering which does not drench the whole root ball) may cause roots to rise to the surface.

Containers Without Drainage

We do not recommend that plants be placed in containers without drainage holes, as the water does not drain through the container and away from the roots. There may be an accumulation of water in the bottom of the pot over a period of time, which will cause root-rot. In addition, those nutrients in the soil, which the plant cannot use, will not be flushed through and may build up to the point of damaging the plant. If it's necessary that a plant be placed in a container without drainage holes (eg. In a terrarium) then a reservoir of coarse, clean stone, gravel or turface, should be placed in the bottom of the pot. This reservoir should occupy 25% of the total volume of the container.

How to Transplant

The key to successful repotting is the soil mix. A good soil mix should consist of at least 20% air to provide essential oxygen to the roots and to allow water to drain properly through the soil. A good mix is free of insect and disease organisms. Most garden soils do not meet these requirements. Packaged potting soils should be amended with 1 part perlite for every 2 parts soil. Perlite is an inert soil additive (i.e. through the soil mix and better air movement around the roots). We recommend adding perlite, rather than vermiculite, because the latter tends to break down over time, thereby outliving its usefulness. A completely sterile potting mix which we have found quite effective for our potting mix which we have found quite effective for our potting needs in the greenhouse,

is a mix of 2 parts peat moss, 1 part fine turface or sand and 1 part perlite. To balance the slight acidity of the peat moss, 1 tablespoon of limestone should be added to a bushel of this mix. Another excellent mix is Pro-mix, a ready-made sterile, soil-less mix of peat moss, perlite, vermiculite and trace elements. Some regular potting soil i.e. 1/3 or 1/4 could be added to this mix to give it some balance. Regardless of the type of soil mix used, you should check your mix to ensure that it drains properly. This can be done by filling a pot with the mix and pouring water into it. The water should drain through in 45 seconds. If it does not, add more perlite until the desired effect is achieved.

Root Pruning

Some varieties of plants (Dieffenbachia, Schefflera, Asparagus fern) may be root-pruned and returned to the same size pot when they are ready for transplanting. This is best done during the high-light season (April to August). With a sharp knife, cut away up to 1/4 of the root ball from the sides then place the plant back into its pot, filling in the space with a porous, potting soil mix. The foliage of a plant, which has been repotted, should always be pruned back in the same ratio that the soil ball has been trimmed.

Repotting

First, choose a pot, which is not more than one or two sizes larger, than the container your plant is currently in. Too large a pot will make more nutrients and water available to your plant than it can use and the soil will tend to stay wet for too long, leaving a potential for soil disease.

1. Moisten your soil mix. Add water to the point where the soil will form clumps when squeezed in your hand. (It should be moist, not wet). Caution: Dry soil, which comes in contact with the plant's roots, will burn them.
2. Gently tap the container holding your plant on the side of a table or counter, and slide the plant out.
3. Gently loosen, or scarify roots of the soil ball with your fingers or a kitchen fork, being careful not to damage any of the fine, carrier roots, which transport water and nutrients to the plant. If the plant was quite rootbound the root ball will be very matted and dense. It is very important that you scarify the root system slightly so as to encourage new roots to develop quickly. If this is not done, it is quite likely that this girdle of dense roots will act as a barrier, preventing new young root growth in the fresh soil mix.
4. Some utility nursery pots have quite large drain holes. If this is the case, you may place some large chunks of stone chips or broken clay chards in front of these holes. This will prevent loss of the fresh soil mix through the drain holes, while allowing the water to flow out freely. Next, place some soil in the bottom of the new container and set the plant on this. Start adding soil around the sides of the root ball, pressing it down firmly as you go. Fill the pot right up to the top of the old root ball but do not add more earth to the top.
5. Water the plant thoroughly with luke-warm water, ensuring that you have a run-through of water from the drainage holes. This is best done in the sink.
6. Place the plant in a bright location to encourage it to quickly generate new roots.