

## Orchid Rescue Mix\*

Orchids that have been stressed or lost most or all of their roots can be rescued by using a special culture medium. The medium has proven to work for members of the cattleya, oncidium and dendrobium alliances, but has not been tried for phalaenopsis (phal) or paphiopedilum (paph) orchids, although it also may work for them with modification. The medium is composed of coarse charcoal, coarse perlite and fine Canadian peat moss (not New Zealand sphagnum peat moss) in a ratio of 4:4:1. Use clay pots (azalea type or slotted orchid pots appropriate for the size of plant) or small clay or plastic pots (2-3 inch) for small plants. Pre-wet the medium with water, just enough to produce a pasty mix and stir the medium thoroughly. Place 1-3 inches of styrofoam peanuts in the bottom third of the pot, place the plant in the pot, then firm the medium around the rhizome or bulbs, but do not pack the medium in too tightly. Secure the plant with a rhizome clip or stake, then water well until the water exiting the bottom of the pot is clear. If plant has some new roots or at least new bulb growths, this medium usually stimulates vigorous root growth and rescue of plants in about 75% of the cases, particularly when potted up during the growing season (May-August in Southern California). Sometimes even stubborn, dormant plants with no roots are stimulated to grow under these conditions. This medium also works well for starting bare root plants or potting divisions.

Cattleya alliance species do particularly well in the charcoal-based medium, as do most hybrids, especially those that normally like to grow on the dry side or mounted (*Brassovola nodosa*, *Brassavola Little Stars*, *Cattleya walkeriana*, *Encyclias*, etc.). This medium also provides a benefit for plants that ramble and readily grow out of their pots, since such plants do not tend to do so in the charcoal-based mix. A friend, located in Orange County, grows all of his cattleya alliance orchids in the charcoal mix using slotted clay pots. This includes seedlings (finer charcoal and perlite and sometimes upping the level of Canadian peat).

**Note of Caution:** orchids grown in this media must be kept fairly dry in winter to avoid root damage, especially if grown outdoors.

The above charcoal medium and technique works probably because it stimulates root growth by providing high humidity and an acidic environment for the orchid shortly after repotting. As the orchid medium is watered over time, the peat moss leaches out and the plant is left in primarily charcoal and perlite, which do not decompose and provide a "clean" environment for the roots. Orchids have been kept in this medium for two years without any apparent problems. However, repotting is recommended after that period to accommodate new growth and to freshen the medium. Once the plants develop a good root system, they can be repotted into good quality bark or repotted back into the charcoal medium depending on the grower's preference.

For paphs, phals and related orchids that have lost all or most of their roots, semi-hydroponic conditions have been reported to work for both types (See article by Anne and Rainer Hartmann, *Initiating Paphiopedilum Root Growth*, *Orchid Digest*, Vol. 72, No. 3, July, Aug, Sept, 2008, which may also work for phals). For a link to standard semi-hydroponic techniques that works for stimulating roots on phals, see <http://www.firstrays.com/hydro.htm>. Adventurous hobbyists may want to try the charcoal mix with phals using plastic pots to maintain higher humidity. Paphs may not do as well in this mix as many of them like a more basic medium, but some types may do OK in this mix.

**THE RESCUE MIX:** 4 parts #3 charcoal, 4 parts #3 perlite, 1 part fine Canadian peat moss (3" and larger pots). Use #2 charcoal and #2 perlite for pots under 3". Wet to allow for effective mixing.

\* Based on Alex Nadzan's outdoor growing experience in San Diego, CA (email: [anadzan@mac.com](mailto:anadzan@mac.com)) with significant input and advice from expert grower Peter Nguyen of Orange County, CA

**Supplies (the most economical sources I have found):**

Premixed orchid bark, small quantities: Home Depot, Lowes or Walter Anderson Nursery

Kiwi orchid bark (small, medium, large) and coarse perlite (no. 3) – Fred Clarke, Sunset Valley Orchids, Vista, CA <http://www.sunsetvalleyorchids.com> Ph: 760.639.6255; Cell: 619.948.5942; email: [fred.clarke@att.net](mailto:fred.clarke@att.net)

General Orchid Supplies: coarse charcoal, coarse perlite, clear plastic pots and misc. orchid supplies - Calavo Gardens, La Mesa, CA, Ben Machido, Ph&Fax: 619.660.9810; Cell: 619.948.5942; email: [bnmach16814@aol.com](mailto:bnmach16814@aol.com)

Coarse charcoal (50 lb. bags) – Western Farm Service (now Crop Protection Services), San Marcos, CA (<http://www.westernfarmservice.com/index.html>)

Coarse perlite (no. 3 and 4) – US Orchid Supplies, Oxnard, CA (<http://www.usorchidsupplies.com>)

Coconut husk chips – Loren Batchman, Casa de las Orquedas, Solana Beach, CA <http://www.orquideas.com> Ph&Fax: 858.755.7572, email: [casa@orquideas.com](mailto:casa@orquideas.com). Loren's website also contains excellent, detailed instructions on dividing, repotting and propagating cymbidiums

Plastic and latex gloves – Smart and Final

Single edge razor blades (100 packs, paint department), clay azalea pots (3 and 6 inch slotted orchid or plain) and small amounts of orchid bark – The Home Depot or Lowes

Plain clay azalea pots (4 inch) – Walter Anderson Nursery, Home Depot