Introduction to Orchids

Welcome to the wonderful, and sometimes weird, World of Orchids. This article is intended as an introduction for someone who has never grown orchids before.

There are approx. 35,000 species of orchids in nature, which vary widely in cultural requirements. Since orchids have few genetic barriers against cross pollination, over the past 175 years nurseries have produced in excess of 250,000 hybrids, some of which are based on more than one genus.

The plants offered for sale to the public are generally limited to those that are relatively easy to grow and rebloom in a home environment.

Light Intensity

Each plant has specific requirements to the level of light/shade required. The majority can be fitted into one of 3 categories:

Low light:

- Diffuse indirect light
- Northeast/Northwest facing window
- Short distance away from an east or west facing window

  - ***Paphiopedilum*** **('ladyslippers')**
  - ***Phalaenopsis*** **('moth' orchids)**

Intermediate light:

- Early morning or late afternoon sun
- East or West facing window
- South facing window with a sheer curtain

  - ***Cattleya*** **('corsage' type orchids)**
  - ***Dendrobium*** **(most, not all)**
  - ***Miltoniopsis*** **('pansy orchids')**
  - ***Oncidium*** **(incl. 'dancing ladies')**
  - ***Phragmipedium*** **(South American 'slippers')**
  - ***Zygopetalum***

High light:

- Full sun
- South facing window (many outdoors in summer)

  - ***Cymbidium***
  - ***Epidendrum*** **('reed stem' types)**
  - ***Vanda***

Relative Humidity:

All plants thrive in a high humidity environment. In winter most houses drop to 15% or less. We should endeavor to provide at least 20-25% for the low light plants, and ideally slightly more for the intermediate & high light plants. For smaller plants this might be a terrarium; for larger plants evaporation trays or humidifiers near the plant could be more effective.

Watering

When you water, you should drench the plant (*do **NOT** use ice cubes*). Some plants require fairly constant moisture, while others require more of a wet/dry cycle.

Constant moisture (drench when barely moist):

Cymbidium
*Dendrobium**, during spring/summer/early fall
Miltoniopsis
Oncidium
Paphiopedilum
Phalaenopsis
*Phragmipedium***
Vanda
Zygopetalum

Wet/Dry cycle (allow the plant to go just barely dry before drenching again):

Cattleya family
*Dendrobium** in late fall and winter.

Fertillizer

All plants require some nutrients. Most orchids are light feeders, needing only about 1/3 of the dosage suggested by the fertilizer manufacturers. There are two schools of thought when it comes to fertilizer application (values below are based on **Peters 20:20:20** fertilizer):

A. Apply every 2-3 weeks, making certain to water with clean water at least twice between the fertilizer applications.
   Spring/summer/fall : 300 PPM
   November-February : 200 PPM

B. Apply at 50 PPM in every watering.

The preference of this writer is A. Watering with clean water washes away any fertilizer salt build-up.

Some growers advocate changing to so called 'Bloom Booster' formulations at certain times of the year. I have tried this, and found it to be entirely useless.

Repotting:

The general rule for repotting orchids is every 2 years. There are two key exceptions; due to heavy watering schedule, both *Miltoniopsis* & *Phragmipedium* should be repotted annually.

Most orchids can be grown in several different media, as long as you adjust your watering & fertilizing schedule to the specific media.

Fibrous mix:

- Pure sphagnum moss
- Sphagnum/bark mix (4:1)
- Treefern roots

These options hold moisture well, will often support a watering schedule of approx. once a week.

Granular mix:

- Bark/charcoal/perlite mix
- Expanded clay pellets
- Small stones

These options drain rapidly and require more frequent watering (small stones = daily in summer).

Choice of Pot or Basket

While Vandas, Cattleya & mature Dendrobium do well in baskets, the plants also dry out very rapidly when grown in baskets (unless grown in a greenhouse).

Plastic pots hold moisture longer than clay pots.

Clay pots dry out faster (ideal for wet/dry cycle plants). Since there is evaporation through the wall, it also helps cool the roots on the plants in summer.

Clay pots are also recommended for taller (top heavy) plants.

'**Orchid Pots**' (= clay pots with slits). They look good, but serve no practical purpose. They tend to dry out too fast.

A different option would be a net pot (= great air circulation for the roots) with sphagnum moss (= holding lots of moisture in the root zone). This combination works well for smaller Vanda plants, and also some epiphytes (such as *Chysis*).

Special notes:

* = There are 3 Dendrobium groups, which have special requirements:

Den. kingianum, speciosum & their hybrids

These do best outdoors in full sun. In NJ from late April till just before the first frost. Water & fertilize normally during spring & summer. Then:

On Sept 15th: STOP fertilizing

On Oct 15th : Cut back watering to once every 3-4 weeks.

Once buds form, increase watering.

Once flowers open, resume fertilizing.

Den. nobile & it's hybrids

These do best outdoors in medium shade. In NJ from late April till just before the first frost. Water & fertilize normally during spring & summer. Then:

On Sept 15th: STOP fertilizing

On Oct 15th : Cut back watering to once every 3-4 weeks.

Once buds form, increase watering.

Once flowers open, resume fertilizing.

Den. lindleyi (aka aggregatum)

These do best outdoors in medium shade. In NJ from late April till just before the first frost. Water & fertilize normally during spring & summer. Then:

On Sept 15th: STOP fertilizing

On Oct 15th : Cut back watering to once every 3-4 weeks.

Once buds form, increase watering.

Once flowers open, resume fertilizing.

** **Phragmipedium** need a lot of water (most grow at the foot of water falls, or in flooding meadows).

Phrag. caudatum Phrag. sargentianum Phrag. longifolium	Water 2-3 times a week

All other Phragmipediums should be grown standing permanently in a flooded tray (with 1½"-2" of water).

Old Flower Spikes

Phalaenopsis flower spikes might produce a secondary blooming via a side branch if you leave them alone.

If there is no activity within 4-6 months (or the stem turns brown), you might as well cut it off near the base.