

General Orchid Culture: Leaves

Light

- Short, yellow leaves, too much light; long, dark leaves, too little light.
- Medium to light green leaves, standing erect correct amount of light.
- Reddish pigmentation is produced by some plants in the upper range of the correct amount of light. Slight reddish tinge is usually a sign of good light conditions. Heavy reddish coloration indicates light is too bright.
- Dark brown spots or yellowed areas on leaves may be sunburn – caused if temperature of leaf rises too high – leaves should not feel hot to touch.
- Light requirements vary:



Light	Windowsill	Greenhouse	Fluorescent lights
Low	Bright north or east 1-2 hours of sun	15% of summer light	100-200 watts/meter ²
Medium	East or west window 2-3 hours of sun	25% of summer light	200 watts/meter ²
High	West or south window 4 hours of sun	35% of summer light	400 watts/meter ²
Very high	South window 5-6 hours of sun	45% of summer light	Not recommended

- Fluorescent lights: Use minimum of 40 watt fluorescent tubes and place light 10-20 cm above plants.

Temperature

- Different types of orchids require different temperatures:

	Night Minimum (Winter)	Day Maximum (Summer)
Warm	18°C	32°C
Intermediate	14°C	29°C
Cool	10°C	21°C

- Provide a 6-12°C difference between day and night temperatures.
- Strive to meet the minimum night temperature, as this often triggers flowering.



Humidity

- Orchids require a minimum of 40% relative humidity to grow reasonably. Plant health will continue to improve by raising the humidity as high as 60-70%.
- In lower humidity new roots have a more difficult time growing from the plant into the potting medium and/or may not form at all, leaves and flowers will not be as large.
- Raise humidity with evaporative wick type humidifiers and/or enclosing plant growing areas. If growing area enclosed, ensure it gets fresh air at least periodically.
- Do not compensate for low humidity with extra watering – continue to water when the roots need it (which will be more often in a low humidity environment) High humidity will reduce the frequency of watering required.
- Air circulation is necessary to avoid rotting in high humidity – the more humidity the more air circulation is required.

Pests

- Sowbugs can be treated with Pyrethrin based insecticides. Read and follow all directions and precautions.
- Fungus gnats can be treated with a drench of 5 mL of Ammonia in 1 liter of water.
- Use Neem oil as a biological control for spider mite and scale. Wait approximately one month to evaluate results.
- Insecticidal soap can be used for spider mite and scale. Repeated applications are necessary.
- Vapona strip can be used for control of thrips. Read and follow all directions and precautions. Three 3 day exposures at one week intervals work well. The spice Cinnamon can be used to treat rot.
- Metaldehyde will eradicate snails and slugs. Very toxic, read and follow all directions.
- General purpose insecticide, excellent for mealy bugs: 15 mL 35% Hydrogen peroxide (from hydroponics supplier), 20 mL rubbing alcohol, 2 mL dish or insecticidal soap in 1 L water, sprayed on the plant. Don't apply in bright sunlight. Reapply in 2 weeks if necessary.

This is one of two general culture sheets. The other on "Roots" as well as culture sheets on particular types of orchids are available from your society or on the web at <http://www.canadianorchidcongress.ca/> and provide additional cultural information. For specific help with your orchids or further information join your local orchid society.

