

The Basics

*T*emperature and Humidity

As a beginner, you should learn as much as possible about your plants in order to afford them the necessary requirements. Since the majority of our indoor plants are indigenous to the tropics, it is natural that we should try to provide them with an environment as close to their natural habitat as practical. This is not always possible with the gesneriad family. They have been acquired from varied climatic areas of the globe and require diverse conditions for growing.

So, instead of trying to adjust our conditions to suit an assorted collection of plants, we must select plants that will thrive under the conditions we can best provide. While many are adaptable and will adjust somewhat to unaccustomed conditions, it is improbable that one would successfully grow an alpine such as *Ramonda* (cool grower) in proximity to *Episcia* (a tropical, heat-loving genus).

The ideal temperature for growing most gesneriads is 18-27 degrees Celsius (65-80 degrees Fahrenheit). Most plants will tolerate, and some plants actually benefit from, a sudden change in temperature. However, it is advisable to try to maintain an even temperature, although it is normal for the temperature to be somewhat cooler at night than during the day. A sudden change in temperature, hot or cold, can have a dramatic and sometimes detrimental affect on some plants.

Sometimes, for comfort or economic reasons, it may be necessary to reduce your thermostat at night to a setting that may result in an unacceptable temperature for your plants. This can be mitigated by running your plant lights at night instead of during the day and also by enclosing your plant stands in clear plastic sheeting. This will help to conserve the heat and keep the temperature at a level that will not affect your plants.

Adequate humidity, or the amount of moisture in the air, is imperative for most indoor plants. Quite often it is one of the more difficult conditions to provide. In the temperate areas our central heating systems produce dry air in the winter, and in the summer our air conditioning extracts the moisture from the air. To keep humidity at a level that is most

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beneficial to plants, we will find it sometimes becomes uncomfortable for us. For comfort in the winter, our houses average 40% humidity while the acceptable level for plants is closer to 60%.

The following are ways and means of increasing the humidity in the plant room without affecting the other areas of the house:

- Set plants on trays or individual saucers filled with pebbles, keeping water level below the top of the pebbles. Water will evaporate and rise, providing humidity.
- Place a humidifier in the room. An inexpensive vaporizer from the pharmacy is ample.
- Jars of water placed among the plants on the plant shelf will also increase the humidity.
- If you have deep plant trays, cover them with egg crating as a base on which to place your plants. Fill the tray with water which will gradually evaporate and increase the humidity.
- Cover your plant stands with clear plastic sheeting. This will increase the temperature as well as contain the moisture which is being emitted by the plants.

Misting is another means of increasing humidity, but it is quite labour intensive and not very effective. Automatic misting, as is done in some greenhouses at regular intervals, might be beneficial, but when it is done by hand on an occasional basis, the benefit is not worth the effort. Should you decide to mist, please ensure that the water is as hot as possible. Cold water will damage the leaves. If your water is lukewarm to start with, it will be cold by the time it passes through the air and reaches the plant. One other thing to remember is that misting is not spraying. Misting is very fine and almost fog-like, while spraying is a shower of droplets.

Most gesneriads dislike dry air and will not hesitate to show their displeasure. Leaves will turn yellow and fall, leaf tips will dry out and become parched, the development of growth and blossoms will be retarded, and buds will blast (fail to open).

Good air circulation is essential. This can be provided by installing a small fan near the plant stand, but not where it will directly blow on the plants, or by leaving the circulating furnace fan running perpetually. Plants will do less well in an area with static air. Lack of ventilation and poor air movement may result in mildew as well as crown rot on some plants. Saint-paulia, Sinningia, and Episcia are some of the genera that are susceptible to

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crown rot. Good ventilation will also help afford a more even temperature in the plant room. On the other hand, plants should never be exposed to drafts or have direct hot or cold air blowing on them. The ventilation should be indirect.

