

The Basics

*P*ots and Growing Media

POTS

Normally two types of pots are used by the indoor gardener—plastic and clay. In recent years, plastic pots have taken precedence over those made of clay, and for many good reasons. Plastic pots are less expensive, much easier to clean, easier to store and not so easily broken. Another good reason is that the clay pot, being porous, dries out much more rapidly than the plastic pot, therefore more frequent watering is necessary.

Before using a pot one should make sure that it is clean and sterilized. This is easily done by placing the pots in a pail into which you have placed water and vinegar at a ratio of 284 mL (10 ounces) of vinegar to 9 or 13 L (two or three gallons) of water. Pots may be left to soak for several days, but should be ready after an overnight soaking. The vinegar will soften the salt build-up so that it may be easily removed. Any difficult spots may be removed with a scouring pad. There are also some commercial products available for this purpose which are most effective (CLR is one example which is available at most hardware stores). Once pots are cleaned, they should be sterilized by putting them in a strong solution of bleach for about 24 hours, after which they should be rinsed in clear water.

SOIL AND SOILLESS MIXES

To grow gesneriads successfully there are certain rules that must be followed in order to create the ideal conditions. This strongly applies to the growing media that we use. Here are the essentials that should be provided in a good soil mix.

- pH is important. pH is the measure of the acidity or alkalinity of the soil, on a scale from 0 (very acid) to 14 (very alkaline). Gesneriads perform best in soil with a pH in the range of 6.4 to 7.
- Soil must be sterile and free of insects and diseases that are detrimental to plants.
- Soil should be light and loose, not heavy. This condition provides good circulation for both water and air that are necessary to the development of your plant.

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- It must contain some organic material that has the capacity to hold moisture as well as nutrients, and provides "buffering" capacity that helps maintain a stable pH.

Here are the components of a good growing medium and a detailed explanation of each element.

Good Potting Soil, which should be sterilized, is often found at garden centers. The composition is usually humus, sand, clay, and sometimes horticultural charcoal. Each of these components will possess some of the required minerals and nutrients that are important to the development of healthy plants.

Sphagnum Moss is gathered from bogs and marshes and is a wonderful source of organic matter. It comes in two forms, i.e., milled and long fiber. The milled type is normally used in mixing soils. It retains moisture and takes a long time to decompose. Acidity in the soil will increase as it disintegrates.

Perlite is a white, globular, gritty lava product, and is customarily found in coarse and fine grades. The coarse grade is best for soil mixes. It is inert and its function is to provide porosity to the soil.

Vermiculite is mica that has been "puffed" or exfoliated by exposure to heat. Somewhat wormlike in appearance, hence its name. It resists being compacted and therefore adds to the aeration and porosity of the soil. It is water retentive and provides potassium, calcium, and magnesium. It affords high fertilization rates and has a high buffering capacity which helps to retard any alterations in pH levels.

Dolomite Lime is limestone that contains 30% or more of magnesium. It is used to control the pH of the soil by balancing the acidity of the peat moss. Dolomite chips, which are not always easily available, are preferable to horticultural powdered lime, as the chips release calcium at a lower rate. Ground eggshells, which are quite effective, are sometimes used as a substitute.

Charcoal: Horticultural charcoal is supplied by most nurseries and acts as a sweetener by neutralizing acids and absorbing objectionable odors. It will also help to hold the pH at an acceptable level. Beware-do not use any other charcoal other than the horticultural type.

Other elements or minerals that must be provided will be explained in a future installment of this series dealing with fertilization.

Soilless mixes, et al: Other media for growing plants have been developed, and there are numerous formulas for soilless mixes. Some years

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ago Cornell University formulated a series of mixes for the purpose of growing indoors. The theory was that most plants do not require organic matter to flourish. They do perfectly well in a sterile mix provided the required elements and minerals are fed to them through a fertilization program. Many enthusiasts are now using various proportions of peat moss, vermiculite, perlite, and lime.

While many growers find a soilless medium quite suitable, I am not an advocate of its use. I found that it was inclined to dry out more rapidly than regular soil, and once dried out it is not easily dampened. I used it when I grew my plants on capillary matting. While that solved the problem of drying out, it created another problem: a black and white fungus on top of the soil which I presumed was a type of mildew. However, if you find that a soilless mix suits your mode of growing by all means use it. It does have its good points, i.e., there is no need for sterilization, it is not malodorous, and it is very light in weight. One must remember though that it is inert and contains very few, if any, nutrients, making continuous fertilization a necessity.

Long-fiber sphagnum moss is another substitute for soil. Planted in it, sinningias do very well. A small layer of sphagnum placed in a pot with a sprinkling of dolomite lime and covered with more sphagnum will be most successful.

