



Growing Gesneriads: A Toronto Master Gardeners Guide

Several members of the Gesneriad family of plants originate in tropical forests where they have adapted to relatively low levels of light and fairly constant moderate to warm temperatures. As a result, many make good houseplants. A few of the Gesneriads are familiar to most people. African Violets (*Saintpaulia*) were among the first of the Gesneriads to become popular. Florist gloxinia, hybrids of *Sinningia speciosa*, are as popular today as they were in the mid-19th century. Their enormous, showy flowers provide a continual source of fascination for the plant lover.

The Gesneriads' range of plant habit and flower form is enormous, challenging orchids in diversity, the other family of predominantly tropical plants grown here as houseplants. The growing requirements of Gesneriads range in difficulty from easy to challenging. Fortunately, most of our modern cultivars fall well towards the easy end of the spectrum.

Surprisingly, *Ramonda myconi* and *Haberlea rhodopensis* are hardy Gesneriads in southern Ontario when grown in a shady crevice or trough garden.

Categories of Gesneriads

Gesneriads are categorized depending on the root structure of the plants. The tuberous rooted and rhizomatous plants are adapted to endure seasons of bad weather when the foliage dies back but the underground fleshy or woody roots sprout again when good weather returns. The fibrous rooted plants may be either annual or perennial but in either case are dead when the foliage dies back to the soil. This category contains many, perhaps most, of those plants which have potential for the home, including African violets.

Notable Cultivars

Streptocarpus

The African genus *Streptocarpus* has long had hybrids available under the common name 'Cape Primrose'. The commonly available *Streptocarpus* have fairly large, long and narrow leaves up to 30 cm in length which form an untidy rosette. However, the rosette is not made up of simple leaves, but phyllomorphs – individual plants with their own roots and flowering stem.

From the base of these leaves arise flowering stalks several inches in length at the top of which are produced one to six showy flowers in a variety of colours. A well grown plant may have 50 flowers open at once.

Good varieties to try are the 'Nymph' series: *S.* 'Constant Nymph', the original, has blue flowers with a yellow throat about 6 cm across. *S.* 'Maasen's White' has identical white flowers with a yellow throat. Other 'Nymph' varieties with larger flowers, smaller habit or different shades of blue are available. While *Streptocarpus* plants prefer fairly cool temperatures down to 55 degrees at night, they do tolerate normal house temperatures.



Streptocarpus is a dainty-looking cousin of the more common African violet (*Saintpauliana*) in the Gesneriad family.

Photo: Helen Battersby

Episcias

The *Episcias* have colourful foliage and bright reddish orange or pink flowers, depending on the cultivar. Their natural range is from Mexico through Brazil where they often form a colourful groundcover in tropical forests. They love warmth and humidity and will not tolerate cold.

Noteworthy among the numerous *Episcias* cultivars are the old favourite *E.* 'Acajou' with 8 – 10 cm leaves of silvery green and dark tan with many smallish red flowers, and the pink, green and white leaved *E.* 'Cleopatra'. The former is easy and floriferous, while the latter is quite difficult but very popular because of its most unusual foliage colours.

All *Episcias* produce stolons (runners, as in strawberry plants).

Alsobia

A. dianthiflora and the hybrid *A.* 'Cygnet' have large fringed white flowers and plain green foliage and are more tolerant of cold than most. The former has small, dainty leaves, the latter bigger leaves and flowers with tiny purple spots.

Sinningia

Sinningia canescens (formerly *S. leucotricha*) are curious plants. New shoots sprout on short canes that may grow to be an enormous (25 cm or more) largely above-ground tuber. The four leaves on top of the very hairy canes are covered with soft, silvery hairs. The visual and tactile effect is much like silver crushed velvet. From the centre of the four-leaf rosette grow many pink tubular flowers.

S. eumorpha has shiny green leaves and white nodding flowers, sometimes lined or flushed with a pink or yellow throat. This is not a difficult plant but it does go dormant.

Sinningia hybrid "Apricot Bouquet" is one of the easiest to grow. It will take full sun and its orange flowers attract hummingbirds. It goes dormant over the winter but must be stored indoors. In the early spring, repot it and water it regularly. It will then be ready to go outside again at the end of May or early June.

S. pusilla is one of the smallest flowering plants of horticultural importance. It may be grown and flowered in a thimble. With delicate lavender flowers held well above the foliage, it is a true miniature delight. It is also ever-blooming and will not go dormant unless forced to. *S.* 'White Sprite' is a pure white form of this species. Both require high humidity and do well in covered goblets or sniffers.

S. pusilla and other similarly sized miniatures have been crossed with larger species to produce many miniature hybrids which have the everblooming habit of their smaller parent. These miniature *Sinningias* are very popular and are available in many colours. Most grow no larger than 15 cm in diameter, usually less. Some popular types are *S.* 'Dollbaby' with large nodding lavender flowers; *S.* 'Cindy-ella' which has purple upper lobes and white lower lobes with many purple spots running into the throat; *S.* 'Tinkerbells', a very reliable hybrid with many reddish

purple tubular flowers produced on a taller growing plant than most; and *S. 'Bright Eyes'* which has darker and larger flowers than *S. pusilla* on a plant only slight larger (to 5 cm diameter). Mix in some granular fertilizer before you plant the bed or the container but first check your soil to see the nutrient levels. Use the right fertilizer for the plants but make sure the middle number i.e. the phosphorous in the N-P-K (Nitrogen -Phosphorous-Potassium) formula is higher than the N number. In general, bonemeal, which is a natural source of phosphorous, is a good soil additive as it will improve blooming and strengthen the roots of all plants – perennials and annuals.

Test your soil to learn its pH (a measure of the acidity or alkalinity of a soil on a scale of 0 to 14 with a pH below 7 indicating acidity, a pH above 7 indicating alkalinity, and a pH equal at 7 indicating neutrality). A pH range between 5.5 and 7.5 is beneficial as it allows for sufficient microorganism activity and nutrient availability. Adding lime to the soil will make the soil more alkaline and mulching with pine needles, pine bark or shredded oak leaves will make the soil more acidic.

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Soil

Any loose, well-drained soilless mix will be appropriate. A good quality African violet potting mix is quite good for such terrestrials as the *Sinningias* and the *Streptocarpus* and for the epiphytic genera (*Columnea*, *Aeschynanthus*, *Nematanthus*, etc.). The latter will benefit from the superior drainage provided by the addition of 25% perlite.

Fertilizing and Watering

With a growing medium that is low in actual soil, fertilize lightly with every watering. Use 1/4 tsp of a balanced fertilizer such as 20:20:20 per 8 litres of water. Fertilize less often with a predominantly soil-based medium. Most Gesneriads prefer even moisture, neither under or over watered. It is unwise to overpot Gesneriads as excess soil, not penetrated by the roots of the plant, will stay wet and may result in rot.

Location

Indirect bright light near a window is best. Protect the plants from hot, direct sun in the summer. Some species such as *Sinningia pusilla* will thrive with much less light than most – these very low-light plants do, however, often require the high humidity of a terrarium.

Artificial light is perhaps the best way of growing Gesneriads in the house. An ordinary two-tube four-foot fluorescent fixture will do very well for most Gesneriads. Use one each of cool white and warm white tubes. Special plant growth tubes are not necessary but some provide a more pleasing colour of light. Place the fixture so that the tubes are 15 – 30 cm above the foliage. Try to keep up the humidity around your plants, keep cold drafts away and enjoy the beauty resulting from your efforts!

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