

# Growing Streptocarpus

By Frances Shilliday



Picture: Bristol's Daisy Jane (Ralph Robinson) grown and photographed by Frances Shilliday

One of the toughest and prettiest flowering houseplants is the fibrous rooted streptocarpus, a member of the gesneriad family. Its long lasting and often strikingly beautiful blooms are borne tirelessly over many months to win converts wherever it goes and its forgiving nature is an added bonus. When growing and propagating streptocarpus plants, you will have greater success if you can provide a humid environment like their natural habitat, the mountains and forests of Africa.

In the wild they grow in shallow soil on the rocky forest floor of a tropical mountainside, so they prefer a shallow pot with the soil on the dry side and the air humid. They like bright light but not direct sun, like the filtered light they enjoy under the tropical forest canopy of their native home.

## Re-pot, re-pot, re-pot!

To succeed with streptocarpus you should repot them often, while still keeping them somewhat pot bound. Repotting every three to six months will help keep your plants in active growth and prevent them from becoming woody. They are more susceptible to collapse from over watering when the roots are compacted in old spent soil. Regular repotting will prevent this and will also reveal any other root problems before they have become serious, for example root dieback caused by one-sided watering, root rot caused by over watering, or root damage caused by soil mealy bugs. Happy roots make healthy plants that will bloom and bloom.

The pot should be no more than 1/3 of the size of the plant's leaf span, but I generally prefer to use the root ball as a guide and allow about ½ an inch to an inch of space all round it for new soil, depending on the size of the plant.

## Soil

Everyone has their own favourite mix and since streptocarpus are not terribly finicky you can afford to experiment a little. I use quite a peaty mix of about 4 parts potting soil to 1 each of perlite and vermiculite. As streptocarpus like to dry out between waterings, wicking is not recommended.

## Watering

Watering should always be done with warm water - as warm as you would use for a baby's bath. The plants just seem to prefer it. I find room temperature water is too cold. Warm water runs off the leaves much better so there is less risk of accidental splashes causing damage. Aim to have the soil evenly moist but not soggy; then allow it to dry out till the pot feels light and the plant is almost to the point of wilting before the next watering. A plant in full bloom can handle heavier watering than one that has just been repotted. It doesn't matter if you water from the top or the bottom. Watering from the top will eventually cause soil compaction but if you repot as regularly as you should this won't be a problem. Water that remains on the leaves should be blotted off with a paper towel or blown off to avoid damage. It can act like a magnifying glass and cause the sun or your lights to burn the leaves, or if the temperature is cold in winter it can encourage rot.

If your streptocarpus plants suddenly wilt in summer don't assume they are dry and give them more water. Extreme summer temperatures will sometimes cause them to collapse. Simply move them to a cooler place and wait till the cool of evening, when they will most likely have revived miraculously. Water only if the soil is dry.

## Grooming

Regularly remove spent blossoms and old outer leaves to keep your plant in vigorous growth. Remove old bloom stalks by pushing behind them gently at the base where they join the leaf.

## Feeding

Streptocarpus will really shine with health if you feed them regularly. I use a balanced fertilizer like Plant Prod 20-20-20 at only 1/4 or 1/8 the strength recommended on the container. If you use too much you may get leaf damage from mineral build up which usually shows as brown blotching on the leaves and you will see mineral encrusting on the soil.

When a plant is forming buds, you may want to use fertilizer with a higher middle number as a bloom booster, although it really isn't necessary for great blooms. Again be sparing with the amount you use to avoid damage.

In winter use plain water and reduce watering frequency when your plants are resting. It is normal to have some browning of the leaf ends when the plant is resting, so don't panic if your plant starts to look ugly. This effect can sometimes be quite dramatic.



Here is one of my plants showing a textbook case of these "lines of abscission" as they are known. This is simply nature's way of ensuring the plant survives its dormant period. When spring comes and you repot simply trim the leaf ends with scissors to a natural looking shape. You can eventually remove these old leaves when they are no longer producing buds and by this time the plant will have put on some new growth in the centre.

## Light

Streptocarpus need bright light but can not tolerate direct sun, so any window where they will not sit in the hot rays of the midday sun is perfect. If you keep them too far from a window they will stop blooming.

They can also be grown under regular fluorescent light tubes if you don't have enough window sill space in your home. Special grow lights are not necessary. Timers are helpful. I prefer manual not digital ones as they are cheaper, simpler to change and don't lose their setting in a power outage.

## Propagation



Propagation of streptocarpus hybrids is most commonly done by cloning them from leaf cuttings, as hybrids will not grow true from seed. I root cuttings under ordinary fluorescent lights in clear plastic boxes (known as domes) as I have found this provides the extra humidity they love. The dome acts as a very humid mini greenhouse and you will see much quicker and better rooting when using a dome than without.

Here are some of the common grocery store containers that can be used as domes for propagating streptocarpus. Choose deep ones to allow enough headroom for the developing leaves.

Square ones will make better use of your space. Make sure they are scrupulously clean before you start, to avoid problems with mould.

## How to take cuttings

Choose a strong healthy leaf with lots of veins for best results, as a new plantlet will form where each vein is in contact with the soil. Avoid using the outer leaves as they are less vigorous. There are three different methods of taking cuttings - whole leaf, cross sections and midrib cuttings, depending on how many new plantlets you want.



Left to right - whole leaf, cross section and midrib cuttings. Behind each is a suitable container.



A whole leaf will usually produce just one plant; cross sections are best for narrow leafed varieties or where only a few plants are needed, while the midrib method suits large leaves and will produce more babies than you know what to do with. A hormone rooting powder is not necessary.

Cuttings root best in a humid environment with the rooting medium kept just moist, not soggy. A rooting medium of equal parts peat, perlite and vermiculite will work well or use your usual rooting mix. For best results use hot water to moisten rooting medium in a mixing bucket before planting cuttings

as it is too easy to over water them when watering in. Mix thoroughly and feel it before filling your trays - it should be lukewarm, evenly damp and fluffy.

There are various ways to provide extra humidity for your cuttings but I find domes work better than plastic bags as they stay clear of the leaf, which helps prevent rotting. A dome will not mist up as much as a plastic bag.

Clear plastic birthday cake boxes or roast chicken containers from the grocery store work well as domes as they have a nice depth. They retain humidity so that it is seldom necessary to water your cuttings until they have rooted. Keep an eye in case they do dry out and if necessary water lightly with lukewarm water or mist with hot water. It will only be warm when it hits the plant - try it on your hand.

For planting cuttings always use the shallowest container you can get away with as they seem to root faster in less than an inch of rooting mix. Perhaps this is because in nature streptocarpus grow in shallow deposits of leaf mould on top of rocks. A plant saucer is ideal. It doesn't have drainage holes so you can add a few drops of water to the floor of your dome underneath it to provide extra humidity. Make sure everything is clean and you should have few problems with rot.

It usually takes about 4 weeks for cuttings to root and another 4 for the new little leaves to appear. Resist the temptation to tug on cuttings to check whether they are rooting or not. If they still look green and firm all is well. You don't need to ventilate the box. Keep it closed but always tear off and remove any rotted leaf parts.

## Whole leaf cuttings



Whole leaf cutting (left) and cross sections (right).

The whole leaf method is easiest for beginners. Insert the base of the leaf into the growing medium as for African violets and firm it in gently. Plant it just deeply enough to keep it from falling over. A deeper pot may be required when using whole leaves as they are top heavy. Cutting the top off the leaf will improve stability and stop the leaf's upward growth so that it will root more quickly.

Place your cutting in bright light but not direct sun. For best results use a dome. Remember to label with the variety name. I use a superfine all surface permanent marker to write on white electrical tape. This resists water, is easily and cleanly removed from your container and can be reused on the next pot when potting on.

## Cross sections

If you want just two or three plants, cut the leaf horizontally across the midrib into sections about two inches long. The sections nearest the leaf base will be the most vigorous and give the best results. Use a ruler or a paint stirring stick to make a slot in the growing medium. Insert the cutting (remembering to keep it the right way up) and firm it in gently.

## Midrib cuttings



The midrib method is said to be more challenging but I have not found this to be the case as long as I use a dome. It helps to choose a very vigorous leaf which shows wrinkled growth near the leaf base like the one pictured here.

Start by cutting out the midrib. Discard it and plant the two sides of the leaf on their edges with the cut edges in the growing medium.

Each side of the leaf can be cut into smaller sections for easier planting. Again use a paint stirring stick to make a slot in the rooting mix and firm in the cuttings. Make sure your knife or scissors are clean and don't keep your cuttings too cold or wet and you should see the little leaves appear in about 8 weeks. The very shallow container I am using here is a fudge tray. It is such a hardship to eat all that fudge but I do it for the sake of the plants!



## Baby plants!



Midrib cuttings of Midnight Flame with baby leaves appearing. They have been planted in a fudge tray and enclosed in a roast chicken container. The clear dome was removed to take the photo.

The midrib method maximises the number of leaf veins in contact with the growing medium so you should end up with dozens of new plants.



These Purple Panda babies are ready for potting up.

## Potting up the babies



The little "rabbit ear" plantlets can be potted up as soon as you are comfortable handling them. For best results, use tiny pots or plant the babies three to a pot. Use shallow pots if possible and keep in a humid environment until they are well rooted and have strong top growth. Cell trays which come with a clear plastic cover are useful.

To separate babies from the leaf, unpot the whole lot and bend the mother leaf gently back while holding the row of babies. (Your thumbs will be parallel when doing this.) The leaf should snap off leaving the babies with most of their roots intact.



Tease them apart gently and handle by the leaf tips. Each little leaf may be a separate plant, although older plantlets will have two or more leaves.

Use a pencil to make a planting hole and firm the soil gently around each plantlet. The handle of an artist's paintbrush is my favourite tool as it doubles for brushing off soil.



A mother leaf with babies can be broken into smaller sections and replanted in little clumps if you are afraid to handle the tiny plantlets individually. The mother leaf will eventually wither and die as the babies grow on and you will be able to separate them more easily when they are bigger.

Do not plant the babies too deeply, but make sure they are deep enough to be stable.

## Re-pot often

Frequent re-potting (as often as every two weeks) will speed up the growth rate of your babies, which can grow to bloom in six months.



Once you have three strong leaves, remove the first leaf with the long thin petiole (base) and then snip the end off the longer of the two remaining leaves. This will encourage the plant to concentrate its growth to the centre. Your plant will normally begin to bloom when its roots have filled a 2 inch pot. At this stage pot up to 3 1/2 inches and it will grow rapidly.

Water streptocarpus very sparingly after re-potting. Once they are in full bloom you can give them a good soak but always allow to dry out between waterings.

## Dividing a mature plant



Streptocarpus plants can also be propagated by division. This is done by dividing a mature plant as you would divide a garden perennial. It should pull apart but you can use a knife if the centre is very dense and woody. Discard the old woody parts and pot up the newer growth with attached roots. If there are no roots attached to a clump you can still attempt to root it and this is best done by removing large outer leaves and placing it in a dome for a month or so until you see new growth. However when there are no roots present you should expect to lose one

or two of the new plants.

## TIPS

Placing your cuttings in a plastic dome will greatly increase your chances of success.

If you find your cuttings always rot try using 100% perlite in a polystyrene cup with no drainage holes and a shallow layer of water in the bottom. Make sure all your containers are scrupulously clean before you start.

Sometimes streptocarpus will root in a small glass of water. I don't use this method as I find roots that develop in water are weaker, but many people use this method of propagation with great success. Use a vigorous small to medium sized whole leaf and change the water frequently. After roots have formed allow them to dry off well (blot them gently on a paper towel) before potting up in your usual potting mix. Keep the mix drier than usual initially. Provide lots of humidity instead.

Experiment with different methods, containers, lighting and locations and find out what works best for you. Have fun and spread those extra streptocarpus plants around so everyone can enjoy their beautiful blooms.