**STARTING VIOLETS FROM LEAVES**

--*This article, by Kent and Joyce Stork, originally appeared in the African Violet Magazine, March/April 2002.*

If you have never started a violet from a leaf cutting, this may be the perfect time. It’s spring in the northern hemisphere, and for whatever reason, it is often the easiest time of year to get leaves to produce baby plants.

While you can use a leaf from a violet you already have, the real fun of this hobby is asking a friend to share a leaf of an attractive variety that you don’t have. It is also a good time of year to find a violet show where leaf cuttings are being sold. You’ll find that you can increase your collection without spending much money and have a lot of fun too.

**WHAT VIOLETS CAN BE USED?**

Most violets will come true from leaf cuttings. This means that the plantlets that grow will be the same as the violet from which the leaf was taken. They will, in fact, be clones of the parent.

Some violets will not come true. Chimeras, which have a characteristic stripe of color down the center of each petal lobe, will rarely produce offspring with the same color pattern. Chimeras have a unique genetic structure that can only be propagated through side shoots or suckers.

Some violets have unstable genetic structure. Often, fantasies (violets that have speckles or blotches) or multicolor violets will produce a percentage of offspring that are not true to the parent. Some of the offspring may instead have solid color flowers. Some violet hybrids are legally protected by copyright laws. These violets will usually be sold with a plastic stake that identifies the copyright restrictions on that hybrid. Many of these are violets that are sold by mass marketers, such as grocery and home stores. It is not legal to propagate leaf cuttings of these hybrids, except to replace the original plant (usually because of a bug or health problem.)

**GETTING THE BEST RESULTS**

The most important rule for success is to use only very healthy, mature (but not old) leaves. Very mature leaves will be more likely to rot in the first few months of the process. This is a stressful procedure for the leaves, and only vigorous leaves will give good results. If the parent plant has variegated leaves, choose leaves that are mostly green. The variegation is a genetic trait which will be passed to the offspring regardless, and heavily variegated leaves are far more likely to rot before any plantlets appear.

The second most important rule is to be patient. It will take about a month for a healthy leaf to produce some roots. Once that is done, the leaf will begin to produce tiny plants at the base of the cut stem. It takes a month or so for those plants to grow to the surface of the soil, and several additional months for the plants to reach a large enough size to be separated. If the leaf is older, variegated, or stressed, it may take longer yet.

The third most important rule is to use a process that works well in your environment. This may take a bit of experimentation. Every grower seems to have a different trick that works well for them. If you have poor results using one method, try another.

The fourth most important rule is to keep the name of the parent plant with the leaf. Violet hobbyists value the name of their plants. Down the road, an unnamed violet has little value to true collectors and cannot be exhibited in shows.

**WHY DOES IT WORK?**

Each cut cell of plant tissue is inclined to produce offspring. Usually, only one plant will grow from each cut cell when traditional methods of propagating are used. The injury to the cell triggers nature’s “survival of the species” reaction. When plant tissue is threatened, the plant uses any method available to guarantee that it does not die. This effort to survive is evident during many phases of the plant’s growth, but especially evident when a leaf is cut away from the parent plant for propagation. Violet babies can occur naturally in some less predictable places. Occasionally, growers will find a tiny plant forming on a crack in a leaf that is attached to the plant, or at the very edge of a leaf that had a slight injury.

**THE WATER METHOD OF STARTING LEAVES**

The traditional way of propagating violet leaves is to place the stem into water until roots begin to grow. In most cases, it is wise to move the leaf into potting mix once the roots have begun to form and allow the babies to grow in the mix. However, some growers prefer to allow the plantlet to develop while the stem remains in water. Using this method, select a healthy leaf and remove it from the plant by moving it from side to side until is pulls free. Avoid pinching or bruising the leaf as this may lead to rotting.

Make an angled cut across the bottom of the leaf stem, about two inches from where the stem meets the leaf. It is best to do this so that the angle of the cut section of the stem is facing the same direction as the hairy surface of the leaf. This positions the future plantlets to grow straight up and in front of the leaf since the leaf will be placed leaning back slightly (so the top of the leaf can continue to use light and produce energy). If you wish to produce an extra large crop of babies, slicing up the stem about one fourth inch (so that the base of the stem is split) may achieve that goal.

Choosing the container of water is one of the most discussed elements of the water method of starting leaves. Whatever container is used must hold the leaf safely above while the stem extends down into a water source. One gardening expert recommends that a dark, long-necked beer bottle filled with water works well for this. The darkness inside the bottle is good for developing roots and prevents algae growth. Many choose a juice glass filled with water and covered with plastic wrap, foil, or waxed paper (often secured with a rubber band). A hole is poked in the center of the cover so that the stem can be inserted through to the water below. Be sure to label the leaf with its hybrid name.

The water in the container should be relatively pure without softening agents or fertilizer. If water quality is an issue in your area, it might be wise to use bottled water. Check the water occasionally to be sure that it is still clear and not clouded by bacteria or algae. If necessary, change the water. Watch the bottom of the stem for the development of tiny roots which will be slightly thick and white. We would recommend that as soon as the roots one-fourth inch long, you remove the leaf from the water container and move it to a small pot of very loose potting mix that contains a high percentage of perlite or vermiculite. Water it in, and then set it in a bright location. The leaf may be covered with a plastic bag or placed inside a covered container (more on that later) while the babies begin to develop and grow.

**THE SOIL METHOD**

In the soil method, leaves are placed directly into the potting medium and allowed to stay there until the babies are separated. It requires less effort, once the initial process is done. Again, remove the leaf from the plant, avoiding any bruising. Make the same angled cut as before, leaving a stem that is one to two inches in length. As an alternative, the stem can be removed and the bottom fourth of the leaf cut away in a wedge shape.

Prepare a small pot with loose potting mix, again using a porous mix with a high percentage of vermiculite and/or perlite and moisten it thoroughly. Insert the leaf, leaning slightly backward so that the hairy surface of the leaf is facing up. For best results, do not set the leaf into the soil very deeply, no more than an inch. The tiny plants must grow this distance to reach light, and they will be stronger if the distance is short. If you are opting to use the leaf with no stem, the cut edge should be set into the soil just enough to support the leaf upright. Do not pack the soil down around the leaf! Next, place the potted leaf into a clear plastic bag or container. We find that zippered plastic bags work will for this. Close it tightly. If using the bag, we find that blowing into the bag to puff it up works well. The added carbon dioxide in exhaled breath is good for plant growth, and the sides of the bag will be in less contact with the leaf. This step may be omitted successfully in areas that already have high natural humidity (50% to 60%) and warm temperatures. Be sure the leaf is labeled with its hybrid name.

Place the packaged leaf into a bright location out of direct sunlight. It will not need additional water so long as droplets of water are visible inside the package. If the leaf has not been packaged, it will need to be watered regularly. There will be no need to move the leaf or change conditions until the babies are large enough to be separated from the parent leaf.

**WHAT ABOUT ROOTING HORMONES?**

We personally find that it is not necessary to treat violet leaves with rooting hormone before putting them down. Following the package directions may result in a glob of the hormone on the stem. This excessive amount is more likely to burn away the new roots, and it may take longer to get results. If you wish to use it, dip a small paint brush into the powder and lightly brush an inconspicuous amount onto the cut edge of the leaf.

**SEPARATING THE CLUMP**

After a period of months, there should be a clump of small plants growing at the base of the leaf. While it is possible to transplant even tiny plants, it is generally best to allow the plants to grow until the leaves are at least the size of a dime before separating the clump. It will be easier for a novice to handle larger plantlets and easier to solve the puzzle of where the individual plants are among the tangled leaves. Some leaf cutting may produce only one or two plantlets, while others may produce a mass of fifteen or more. Murphy’s Law seems to dictate that when you desire more plants, fewer plants will be produced.

Begin by slipping the entire clump and soil ball out of the pot and laying it sideways on a work surface. Gently begin working away the potting mix so that the stem of the parent leaf is exposed. Sort the small plants apart from one another. This is challenging to the beginner! The plants are reasonably sturdy, so one can be courageous about pulling them apart. A few torn roots will not impede their later growth. It may help to look for a distinctive neck that connects the rosette of leaves to the root system of each plantlet.

There are two common mistakes made at this point. Some will believe that each tiny leaf is a plant and literally pull the plantlet apart. This is a fatal error. The other mistake is to fail to separate the plantlets adequately, allowing two or more to be potted together as a single plant. This mistake can be corrected later, when it becomes apparent that there are two crowns competing for space.

Next, prepare the pots into which the little plants will go. Since the plantlets are still small, a two-inch pot is usually the proper size. Fill the pot with loose, high-quality violet potting mix and do not pack it down! Use the tip of a pencil to make a small indentation into which the plantlet is set. It should be in the very center of the pot, and the stems and leaves should be above the soil with just the roots and the neck (if there was one) below soil level. Water each pot and set in a slightly warm and humid location. It may be helpful to place them back into a plastic bag or clear container for a few weeks to bring plants through the shock of transplanting. Be sure the violet hybrid name is transferred to the new pots. The plantlets should take off and grow rather quickly. As the leaves grow larger and the diameter of the plant increases, it may need a larger pot. Typically, the plants should be mature enough to bloom in six to nine months.

**GO AHEAD AND PROPAGATE**

African violets have gained tremendous popularity since they were first discovered in 1892. Much of that acceptance is due to the ease of propagation. Starting a violet leaf is easy, fast, and inexpensive. Exchanging leaves with friends is a great way to build a collection. Once you master the skills, you will find that you are no longer just enjoying the view, but participating in the hobby. Some violet growers even believe that the plants they get from leaf cuttings are stronger and more adapted to their own growing conditions. Don’t be afraid. Put down a leaf!