

Basic Care for African violets

Water

In general, African violets need just enough water to keep the soil moist, but never soggy. Too much water will leave your African violets susceptible to root rot and crown rot. Over watering can also cause denitrification, a condition, which prevents plants from getting the nitrogen they need.

The water should be room temperature, or as close as possible in temperature to the air around your plants. When the water is too cold, it chills the roots of African violets causing leaves to curl down as the water is absorbed into the plant. (Note: It is always important not to water on the leaves. The only exception to this is when you are spray misting for purposes of quick feeding or increasing the humidity around your plants. Such misting will not leave behind the large water droplets which, when exposed to the sun or lights, will produce brown spots on the leaves.)

Never use soft water. Soft water increases the saline content. This will alter both the pH and the electrical conductivity of the soil, thereby diminishing your African violet's ability to absorb water and nutrients. If you have soft water, you may be able to divert water before it reaches the softening unit. If not, you will need to seek an alternative source of water.

Avoid using highly chlorinated water. While some chlorine is actually necessary for photosynthesis to occur, African violets need very little. In fact, if you can smell chlorine, then your water has too much. The consequences of using water with too much chlorine in it include leaf burn and diminished flowering. If you have highly chlorinated water, and no alternative source is available, dispense water into a container and let stand overnight to allow the chlorine gas to escape.

To insure correct watering, try wicking the plants. The use of 2-ply yarn, 4-ply Acrylic Baby Yarn or Pantyhose works successfully ... whatever wick is used, it must be acrylic or nylon or synthetic to prevent rotting.

Grooming

A good grooming routine is important. It will help keep your African violets looking beautiful as well as keeping them healthy. When done on a regular basis, grooming takes very little time. To maintain a consistent routine, groom your African violets as part of your regular watering schedule.

Look for potting soil or other debris, which may have accumulated on the leaves. Dust, dirt and other debris may be removed using a soft-bristled brush, such as a small artist paintbrush or make-up brush. Note, however, that any brush of this kind should be reserved exclusively for use on your plants. Next, inspect your African violets for spent blossoms. Also, keep your eyes out for leaves that are damaged. Spent leaves and flowers encourage rot that, under the right conditions, can spread to healthy parts of your African violets. Damaged leaves and flowers leave your African violet vulnerable to bacterial diseases, viruses and other microorganisms, such as Nematodes.

While grooming your African violets, be on the look out for suckers. If you are trying to maintain the symmetry of a single-crowned plant, suckers should be removed as soon as you see them. Otherwise, suckers will develop into new crowns.

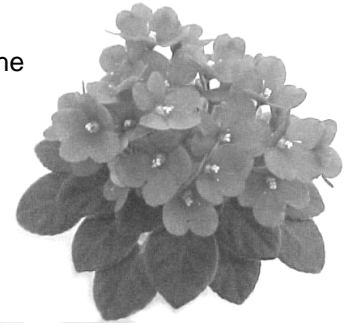
Finally, your grooming routine should always include an inspection for insects and other pests. Often, the pests themselves will be clearly visible. Even if you do not see them, however, most pests will leave symptoms. The appearance of any unusual characteristic, on your African violets, should be cause for further investigation. Remember that insects and other pests are easier to treat when their presence is recognized early.

Light Requirements

The amount of light that an African violet receives is important for its health and overall performance. African violets need light for photosynthesis. While photosynthesis is most often associated with a plant's green leaves and stems, its most vital function is to convert carbon, hydrogen and oxygen (in the form of carbon dioxide and water) into usable energy called plant carbohydrates.

If an African violet does not get enough light it will stop flowering and its leaves begin to turn yellow. It is also likely that the African violet which is not getting enough light, will become rangy as it develops elongated leaves and stems.

If you have access to a light meter, the correct luminosity for African violets is 10,000 to 12,000 lux, or about 900 to 1100 foot candles. When selecting a grow light, it is important to make sure it emits light in both the red and



blue spectrums. Red light is essential for African violets to bloom. Blue light is necessary for photosynthesis to occur and, thus, is vital for the development of green leaves and the production of plant carbohydrates.

It is important to remember that African violets need at least eight hours of darkness, each day, in order to bloom. While African violets need a sufficient duration of light to produce florigen (flowering hormone), florigen itself does not trigger blooming until it is dark. For this reason, African violets should receive light for no more than 16 hours a day. To properly regulate the duration of light, you may want to consider getting a timer for your grow lights.

When growing under lights, it is very important to remember to replace the tubes, at least annually. If growing for show, replace your tubes approximately 3 months before the show date.

Temperature and Air Quality

In terms of temperature, humidity and other factors of air quality, African violets thrive in an environment that most people would consider pleasant. Therefore, if you feel comfortable, chances are, your African violets are feeling comfortable as well.

In general, you should keep the air temperature, around your African violets, as close as possible to 70 degrees F. At the very least, do not allow temperatures to drop below 60 degrees F or rise above 80 degrees F. Also, while extreme variations in temperature should always be avoided, do not be concerned about slight fluctuations between day and nighttime temperatures. Good air circulation, especially when the air is damp, helps prevent the growth of such fungi as Botrytis and Powdery Mildew.

Fertilizer

Violet food is a fertilizer specifically labeled for African violets. A good violet food should have approximately equal amounts of the primary nutrients, nitrogen (N), phosphorus (P) and potassium (K). These elements are normally found on the front label. [Note: these fertilizers are typically referred to as a 'balanced fertilizer'.] Many fertilizers that have been labeled for African violets, in fact, contain impurities that can be harmful to violets. Urea, for instance, is a commonly used source of nitrogen. While it is often cheaper to use than other sources of nitrogen, urea is known to cause root burn on African violets. The damage caused by root burn reduces an African violet's ability to properly absorb water and nutrients. The most obvious signs of this are pale leaves and diminished flowering. Therefore, when selecting a fertilizer suitable for African violets, make sure that it does not contain urea nitrogen. This can easily be determined by looking at the Guaranteed Analysis on the fertilizer

label. If urea nitrogen is used, it will be listed.

When choosing a violet food, make sure that it is 100 percent water-soluble. This is important for two reasons: First, if your violet food is not 100 percent water-soluble, your African violet may not be able to absorb all its elements. Second, unless your violet food is 100 percent water-soluble, you cannot use it in a self-watering device. When using one of these devices, elements will only be drawn into the soil if they are fully dissolved.

Of the primary elements, nitrogen is important for overall growth and the development of green leaves and stems. Phosphorus aids in the production of healthy roots and plays a vital role in the production of flowers. Potassium is necessary for the accumulation and movement of plant carbohydrates, those compounds that give the plant energy.

One final consideration in regard to fertilizers is the issue of overfertilizing. While African violets need a certain amount of essential elements to grow and reproduce, too much can be harmful. Among other problems, over-fertilizing can cause leaves to become cracked or brittle. It may also produce lesions on the leaves and stems. In addition, an overload of certain elements will actually stifle an African violet's ability to absorb certain other elements. Such imbalances in the elements that are absorbed by African violets can cause a number of additional problems, such as droopy leaves, leaf tip burn and diminished flowering.

In addition, it is important to drench the soil. This will wash away any excess fertilizer salts that have accumulated in the soil, while restoring the proper balance of the elements that African violets need. To leach the soil, simply drench it with water until it has become saturated, and then allow the excess water to drain completely. A piece of egg crating sitting on top of a bucket or small trash container is a perfect place for leaching of your violets. The water passes through the plant



and egg crating and is captured in the bucket. You can catch several plants this way before it's time to dump the bucket.

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