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3 East Alumni Avenue
Kingston, Rhode Island 02881

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AFRICAN VIOLETS

The African violet (*Saintpaulia ionantha*) can be one of the most satisfying flowering houseplants. It is a low, compact plant with attractive dark green, thick, hairy leaves. The violet-like flowers are borne in small stems just above the foliage. Cultivars are available with pink, fuschia, white, and blue-violet flowers, as well as bi-colored flowers. There are cultivars with semi-double or double rows of petals. Trailing cultivars and miniatures are also available. Plants kept in good condition flower almost continuously.

Potting

A soil mixture composed of about two parts fertile loam, one part leaf mold or peat, and one part sand or perlite is recommended for growing African violets. The soil must be porous to allow surplus water to pass through readily. Most violets are grown in a pasteurized soilless mix; a good soilless mix is made up of three parts sphagnum peat moss, two parts vermiculite and one part perlite, with some lime added to balance the acidity of the peat moss. Compost, good garden soil, or loam can be used for up to half of the total mix, with the other half vermiculite and/or perlite.

When potting African violets, the plant should be set so that the crown is just above the surface and the soil is firmly pressed around it. Emphasis in planting should be on good soil drainage as any free water on the surface may cause decay at the crown or at the bases of the leaf stalks. A saturated soil mix also leads to unthrifty top growth and root rots. A layer of coarse gravel at the bottom of the container will not improve drainage.

Repot violets about once a year or when the leafless portion of the stem is about 1 to 1 ½ inches long. Gently remove the plant from the pot with a paring knife. Remove all lateral crowns, leaving only the center crown. Trim off one or two rows of leaves, leaving a wheel of leaves around the crown. With the paring knife, scrape the neck as you would a carrot until all the brown plant material is removed and the neck is firm and green. Break or cut off the bottom half of the root. Have a clean pot ready for the pruned violet. Gently firm in new soil around the plant and water well. The pot should be one-third the diameter of the plant; a 4-inch pot is usually adequate.

Propagation

The usual method of propagation is by leaf cuttings during the spring. Cut off mature leaves with one inch of their stalks. Firmly plant the stalks into sand or vermiculite

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When trade names are used for identification, no product endorsement is implied, nor is discrimination intended against similar materials. Be sure that the pesticide that you wish to use is registered in the state of use.

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with most of the leaf blades exposed. Thoroughly water the sand. In greenhouses, the benches of cuttings are usually covered with light muslin or glass to keep the air moist. In the window garden, a few cuttings can be covered with a glass jar or plastic. In two to six months, young plants start from the bases of the stalks, which are ready to be potted after they have formed two or three small leaves.

Growing Conditions

African violets adjust well to the warm temperatures and dry air of homes. Although they require good light, direct sunlight is not necessary. Windows facing north or east provide favorable light conditions and are preferable to those exposed to midday and afternoon sunshine during summer. The sunnier, warmer windows are better in the winter.

Ideal temperatures for African violets are about 60 degrees F at night and up to 80 – 85 degrees F during the day. The plants become stunted at cool temperatures and are slow to recover even when moved into a warm place. Plants are especially susceptible to rot in hot weather (over 85 degrees F).

Watering

The soil must be kept moist at all times, the foliage should be kept dry. Drops of water on the leaves cause disfiguring light-colored spots or rings. Proper watering can be simplified by keeping the pots in watertight saucers or bowls into which a little water is poured every few days. A wick extending through the drainage hole into a saucer of water may also be used. Another effective method is to submerge the pots in peat or sphagnum moss within in a larger container and apply water to the peat or moss as needed to keep the soil moist in the pots. In either of these methods, water moves from the saucer or peat by diffusion through the hole in the bottom of the pot and into the soil ball.

Disease and Pest Problems

One of the major problems associated with African violet care is excessive watering, which can lead to root or crown rot. Root and crown rot caused by the fungus *Pythium ultimum* may occur on overwatered plants. The crown and roots of infected plants turn dark and soft and the leaves usually wilt. Infected plants can be lifted easily from the soil. Destroy badly diseased plants, and thoroughly clean and disinfect their containers before reuse. Highly prized plants can sometimes be saved if the crown is not badly decayed. Remove the rotted portion of the crown well above the line of decay and reroot the plant in sterile medium.

Petiole rot begins as an orange-brown or rust-colored lesion where the petiole touches the rim of the pot or where it contacts the soil. This is aggravated by the accumulation of fertilizer salts on the rim of the porous pot or on the soil surface. An aluminum foil collar on the rim of the pot and flushing the soil occasionally with heavy watering will prevent this problem.

The unsightly yellow or white ring and line patterns that occasionally appear on the leaves are thought to be caused by a sudden chilling of the leaves by cold water or by the sun shining on wet leaves. This condition is known as ring spot or chlorosis, and can be avoided by carefully watering the plants from below with water slightly warmer than air temperature.

African violets infested with root-knot nematodes are stunted and weakened. Galls form on the roots, and the crown and leaves become thickened and distorted. Blisterlike galls also develop on the leaves. Destroy all infested plants, sterilize their containers, and propagate new plants only from nematode-free plants.

The leaves of plants grown under greenhouse conditions may become infected by the fungus *Botrytis cinerea*. Botrytis blight first appears as small, water-soaked lesions on the underside of the leaf. These lesions enlarge until much of the leaf turns brown to black. Flowers may be similarly affected. High humidity, poor air circulation, and low light intensity contribute to the development of this disease. Spores of the pathogen are spread by direct contact of leaves. Spacing the plants so that the leaves of adjacent plants will not touch reduces spreading to healthy plants. Since infection by *Botrytis* often follows mite injury, controlling these pests aids in controlling the disease. The application of a foliar fungicide may be needed to control severe outbreaks.

Powdery mildew is a light grey, powdery substance on the stems and petioles. This shortens the life of blooms and makes the violet unthrifty. Mildew grows in cool, moist, stagnant air. The best cure is air circulation – a small fan moving the air in the room will help prevent powdery mildew.

Insects and mites occasionally damage the foliage and flowers of African violets. Cyclamen mites feed in the plant crown, causing young leaves and new growth to be stunted, twisted, discolored, and brittle. When infestations are heavy, leaf hairs become matted and flower buds fail to open. Isolate infested plants and be careful while handling them so you do not accidentally transfer mites from one plant to another.

Mealybugs are small, soft-bodied insects that occur in white, cottony clusters on the surfaces of leaves, on leaf petioles, and near the bases of leaf stems. They injure plants by sucking plant juices, causing stunting and distortion of the leaves. Mealybugs also excrete a shiny, sticky substance called honeydew that is highly attractive to ants and also supports unsightly growths of a dark sooty mold. Heavy mealybug infestations may cause leaves and plants to wither and die. Mealybugs can often be eliminated by spraying plants with a jet of lukewarm water or by removing them with a cotton swab dipped in alcohol. Ground or root mealybugs are tiny, whitish insects that feed on African violet roots, causing poor plant growth and wilting of leaves between waterings. Avoiding over-watering will help to control these insects.

Stunted plants with curled or distorted leaves may be an indication of feeding by aphids. Both adults and nymphs are similar in appearance, with soft, pear-shaped bodies, long legs and antennae. Like mealybugs, aphids excrete honeydew, giving leaf surfaces a shiny appearance and supporting the formation of sooty mold. Aphids can be washed from infested African violets with a spray of lukewarm water.

Thrips are small, slender insects characterized by long, hair-fringed wings. They damage African violets by feeding on the leaves and flowers. Typical leaf injury appears as irregular or streaked silvered areas dotted with small, black drops of excrement. Flower feeding causes distorted blooms, discoloration or streaking of petals, and shorter flower life.

If pesticides are necessary in order to control these insects, be certain the product selected is recommended for use on African violets.

Adapted from Donald H. Steinegger, John Watkins, Anne Vidave and Frederick P. Baxendale, Nebraska Extension, 2000