

From the **Best of 2012 AVM Articles** – this appeared in the July/Aug 2011 issue

# Preventing Virus

By Georgene Albrecht

The word “virus” in Latin means poison. The massive volume of sales and trading of plant material through Internet contacts and club exchanges has caused an “explosion” of virus infestations.

Information about the seven foremost viruses that invade our African violets and other gesneriads will help us safe-guard our collections.

## **GROW SMART**

DO NOT LET THIS FRIGHTEN YOU. If you follow prevention tips, have perfect isolation and eliminate the vectors, your plants will be safe. If you have symptoms of virus, please DO NOT PANIC. Every symptom can ALSO be caused by cultural conditions.

Always ISOLATE the problem plant. Stunted growth is a sign that a plant is not thriving. Other common symptoms are ring spots, distorted foliage, mottled patterns, chlorosis, brown pitting, die-back, color break and blistering. Virus can also be present in a plant without showing ANY symptoms. Stress on a plant may trigger virus growth. The virus usually presents itself at the site of infestation, but may be latent for some time.

## **CONTROL VECTORS**

Thrips (Western Flower Thrips or WFT) cause both tospoviruses. These are Necrotic Spot Virus, known as INSV, and Tomato Spot Wilt Virus, known as TSWV. Both viruses are carried and spread by the saliva of thrips. Remove all buds for months because they live in the pollen sacs. Spraying with Conserve® and then doing two follow-up sprays, five days apart, will control WFT. Please contact Cape Cod Violetry, 587 Shawmut Avenue, New Bedford, MA 02740-4620 or phone: (508) 993-2386 for your growing needs. They also have an ad in the AVM.

Shake Conserve® well before measuring. Suggested use is one-third to one-half teaspoon per gallon of water. For safety sake, wear long sleeves, a mask and latex gloves. There are new products coming out shortly to deal with thrips. When details are available, we will write of them in our “Family Portrait” column. I add two or three drops of Safer’s Soap as a spreader-sticker or surfactant in the Conserve® spray mix. Shake often. The follow-up sprays are very important.

Close off your growing area during warm weather so thrips are kept at bay. Keep tabs on them by placing yellow or blue sticky strips at the entrance to your

growing area. Hot Shot No-Pest strips will be okay in my basement, but they cannot be used in my main living spaces. Isolate your entire growing area and be meticulous about disposing rubbish, old soil, bad plants, spent blooms and used pots. Have covered trash containers and empty them often. It is also surprising how many insects will go for a dip when a cup of soapy water is kept in the growing area.

## **IDENTIFICATION**

If you combine stunted growth with strange markings on or beneath leaves, isolate the plant immediately. If it does not thrive in isolation, test for virus. If you do not wish to test, toss the plant, pot, soil, containers and gloves that may have touched it. Wash or immerse the tray, watering can, tools, etc. in a 10% bleach solution for ten minutes. I lost an entire collection of orchids and gesneriads. It's heart-breaking, but we can start a new collection that is better and safer.

Initials are used as acronyms for virus groups and strains. We can test African violets and all gesneriads for tospoviruses, Impatiens Necrotic Spot Virus (INSV) and Tomato Wilt Spot Virus (TWSV) at home with Immunostrips® from Agdia Laboratories. For more information, visit their website <http://www.agdia.com/index.cfm>.

They have also developed a test to screen African violet foliage for six viruses, plus another separate test for Carnation Ringspot Virus (CRSV). The screen and CRSV test can only be done by a lab, also.

These serological tests are named ELISA which stands for enzyme-linked immunosorbent assay. It is important to note that viruses may not infect the entire plant, but can be isolated in only a small section. For this reason, tissue for tests must be taken from the exact area showing symptoms. A state pathology lab may also help identify virus.