

Impatiens Necrotic Spot Virus (INSV)

by Ken Barbi (As of December 12, 2022)



Recently purchased INSV infected African violet courtesy of Dr. Minh Bui

Several members have reported receiving African violets from commercial sources that are infected with the Impatiens Necrotic Spot Virus (INSV) in the Fall of 2022 in the Mid-Atlantic states and Florida.

This virus has been diagnosed in African violets and other gesneriads, and has **no cure**. It is transmitted by notorious **THRIPS**. It has wiped out entire greenhouse stocks of several commercial growers, and destroyed entire members' collections. Its symptoms mimic other common problems we have faced over the years such as mites, poor culture, water spots, leaf mottling, etc.

The problem is something we all need to know about, particularly how to combat the virus. The only positive way to determine if your suspect plants have INSV is to perform a test. Test kits are available from Agdia. Once you determine a **single plant** in your collection has the virus, you can be sure all your plants are at risk if you have thrips which carry the virus. **Destruction of infected plants** is the only cure, and control of thrips is the key to prevention. You can't propagate INSV away - it will live in every offspring. Seal the bag you put it in, and don't compost it. African violets aside, INSV needs to be dealt with responsibly because of the major damage it can cause to crops. It can wipe out entire fields of crops, and we don't want to play any part of that. Even if you don't have thrips, contaminated tools and surfaces can also spread INSV. **Some members are destroying their entire collections.**



INSV infected African violet leaf courtesy of Dr. Minh Bui

So now you say, I have tried everything to kill those little bugs. Science has come to the rescue in the form of an insecticide called **Avid**. There are other products as the following chart from AVSA shows. I thought it important enough to bring it to your attention. If you want more detail, there is a fine collection of research from the University of Massachusetts, Texas A&M, and Colorado State Cooperative Extension On-Line. Search the internet for "Impatiens Necrotic Spot Virus" for more articles. But **ACT NOW** to save your collection.

Pesticide	Kills	Label recommended applications	Vol. of Product needed to make 1 gallon of spray sol'n, per Label directions [1]	Target conc'n of Active in Spray Solution (%) [1][2]	Cost of Product [3]	Cost to make 1 gallon of spray solution (\$) [1]	Product Volume
Abamectin , same as Avid (2% Avermectins, Liquid)	cyclamen mites, leafminers, thrips, aphids [4]	3 times, 7 days apart	0.08 oz, 2.37 ml	0.0013 [4]	\$93.20 per quart	\$0.23	1 quart, 960 ml
Conserve SC (11.6% Spinosad, Liquid)	thrips and many other insects [5]	5 times per season (max); resapp'n. 5 days (min)	0.10 oz, 2.96 ml	0.0181 [5]	\$183.75 per quart	\$0.57	1 quart, 960 ml
Akari 5SC (5% Fenpyroximate, Liquid)	cyclamen mites. Suppresses mealybugs [6]	3 times, 5 - 7 days apart	0.24 oz, 7.2 ml	0.0093 [6]	\$166.50 per quart	\$1.25	1 quart, 960 ml
Dominion 2L (21.4% Imidacloprid, Liquid)	thrips, aphids, fungus gnats, mealy bugs [7]	Begin foliar app's prior to high pest populations and reapply as needed.	0.015 oz, 0.45 ml	0.0025 [7]	\$27.95 per 27.5 oz bottle	\$0.02	27.5 pz, 825 ml
Mantra 1G (1% Imidacloprid, Granules)	thrips, aphids, fungus gnats, mealy bugs [8]	Apply 1/4 - 1/3 level teaspoon per 3.5 - 5 inch pot. As needed.	Granules	Granules [8]	\$46.00 per 5 lb jug	\$0.02 per 3 1/2 " pot	5 lb, 2270g

1. When the label suggested two acceptable rates, the higher rate (2X) was used to obtain these numbers.
2. Target % concentration of spray solution = [Volume (ml) of Product specified on Label for 1 gallon of Spray solution] X [% Active in Product] / 3840 ml.
3. Prices as of Nov, 2012. The products were purchased at Hummert, except for Dominion 2L, bought online at domyownpestcontrol.com.
4. Nufarm Abamectin Specimen Label: <http://www.cdms.net/LDat/ld9OR002.pdf>.
5. Dow Conserve SC Specimen Label: <http://www.cdms.net/ldat/ld24P002.pdf>.
6. SePRO Akari 5SC Specimen Label: <http://www.entomology.umn.edu/cues/mnla/akari.pdf>.
7. Dominion 2L Specimen Label: http://www.domyownpestcontrol.com/mads/Dominion_2L_label.pdf.
8. Nufarm Mantra 1G Specimen label: <http://www.cdms.net/LDat/ld8ED003.pdf>.