

How to Eliminate Thrips

By Sandra Skalski

Step 1: Disbud your entire collection

When I say disbud, I mean every blossom and bud, down to the teeniest bud. You will continue to do this every five to seven days for three months. You don't want a couple thrips to be able to restart the problem so starve them of their favorite food and reproductive fuel. The upside is your foliage will grow healthy and strong, as all of the plant's energy will be focused on growing fresh leaves. If there are any plants in your collection that do not appear healthy for any reason, toss them now. Don't risk the spread of a disease for a few plants. If you can't bear to lose them, isolate them from the rest of your collection until you are sure they are healthy. Toss the buds and other plant material into a plastic bag, seal it, and dispose of it immediately.

Step 2: Spray the entire collection thoroughly

When I say the entire collection, I mean every plant. Every. Plant. Don't spray only the plants on one shelf or on one side of the room. You need to spray everything. If you don't you are just wasting your time. Thrips fly and there is no way you can be sure they didn't get over there even if the problem seems to be just over here. I spray my best/favorite plants first, and work on down. If there are plants you find you don't want to spray at the end, toss them. You have now reduced your collection.

Make sure you have a good sprayer on hand. A small, hand-held pump sprayer with a fine mist is ideal. There are several insecticides that are effective against thrips. Here are two that I have used successfully.

Avid – 1/2 teaspoon per gallon

Conserve – 1/2 teaspoon per gallon

Step 3: Put fresh yellow sticky cards on every shelf

You want to use new cards because this is already a hassle and you don't need the additional aggravation of figuring out what speck is new and what speck was already there. Use yellow because thrips are much easier to see against the yellow background - Trust me on this one. Use at least one sticky card per shelf because the more cards, the more chance of catching the thrips. You can also identify where the problem is the worst. I also tape a sticky note besides the card with the number of thrips I noted on that card. Don't trust your memory because you need to know when you stop seeing new adults on the cards.

Step 4: Spray again after about 5 days

You may notice an uptick of adult thrips on the cards after the first spraying. These may be adults the spray missed or happened to be flying when you sprayed. They are flying around, searching for pollen (they should not find any if you disbudded thoroughly). It is important to eliminate adults as quickly as possible so they don't reproduce, so hence, you spray again.

Step 5: Spray a third time about 7 to 10 days later

You will now be catching any larvae that recently hatched, and remaining adults. You should be seeing far fewer adults caught on the cards after this spraying.

Step 6: Repot

Repotting will help freshen the plants and remove damaged outer leaves. You will also scrape off the entire top layer of soil (at least an inch or more) so that any pupae may be removed. I discard the scraps from this repotting in a sealed trash bag.

Step 7: Spray a fourth time

This is to catch any recently hatched larvae, nymphs or stray adults. I added an insect growth regulator at this point in my program. I'll talk more about that later. You should stop seeing adults now, so it is important to keep checking those sticky traps and keep disbudding.

Step 8: Lock Down

Lock Down is the last refuge for stubborn infestations. If you are still finding new thrips, despite following all of the above advice, you need to start isolating plants or shelves of plants. I have used domes, baggies and clear Sterilite containers. You want all of your plants isolated by shelf if possible, with a sticky card in each dome or container. This way, you can figure out if the problem is still widespread or just on a few plants. Trailers can be difficult to clear up because the soil is not as easily scraped off. If you think this may be your problem, take some crowns and restart new plants and discard the remains. Leave a few sticky cards out in the open to catch any stray adults still flying. Remember, adults can live for at least a month or more. Check the sticky cards in each sealed container or domed tray to see where the infestation remains.

“The New Weapons”

In addition to the familiar pesticides, there are several other weapons you can use to fight this battle. If you live in an area where temperatures rarely go below freezing, you may be especially interested in these extra layers of offense or defense.

I added an indoor bug zapper to my plant room. It has really helped eliminate the fungus gnats. I am not sure if it attracts and zaps thrips, but it can't hurt, right? The downside is they run about \$40 for a unit on Amazon. They also make a loud noise when an insect hits the coils. The good news is that sooner or later you will run out of flying insects and zaps.

I put up No-Pest Strips in my plant room. These are insecticide strips that give off a vapor that kills flying insects. I have also used these in the battle

against fungus gnats and they seem to help. The downside is, you really shouldn't use them in a living area. My plant room is only inhabited when I work on my plants, so I can get away with hanging a couple of these when I spot a problem.

Insect Growth regulators are a newer weapon against the insect world. They are now a primary line of defense against household pests like roaches, fleas, bedbugs, and carpet beetles. There are two main types; juvenile hormone mimics and chitin synthesis inhibitors. The juvenile hormone mimics are like a fountain of youth for bugs. They don't kill adult insects, but they interrupt the development of non-adults from one stage to the next and may make adults infertile. A larvae will not become a pupa and a pupa will not become an adult. Chitin synthesis inhibitors prevent the insects from forming their outer shell, causing them to die after molting. These compounds tend to be very expensive.

I did some research and discovered that these compounds are recommended for thrips. Will they harm African violets? I used a juvenile hormone mimic containing pyriproxyfen (Nylar) at the rate of 2 teaspoons per gallon. I tried this on a few plants and did not see any harmful effects. The fourth and final time I sprayed, I mixed the growth regulator with the Avid.

Unlike insecticides, insect growth regulators can remain effective for months, making them particularly ideal with dealing with insects with high rates of reproduction, like fleas. However, this is also the downside and the reason why insect growth regulators use is limited to the home or a greenhouse. They are not selective and could have devastating effects on beneficial insects and pollinators. DO NOT use them outdoors.

Predatory mites are the carnivorous cousins of the pest mites that plague our plants. They can be purchased and are usually applied by sprinkling mite-infested sawdust around the base of plants. They love to eat thrips larvae. I have never intentionally used these critters but I suspect that those with whom I trade or from who I have purchased plants has, since I have found them on my plants. The downside is when there are no thrips larvae, they still need protein. Pollen is usually their next

favorite food, so you will sometimes find them in the pollen sacks. An inexpensive microscope will tell you they are mites and not thrips larvae.

Some Final Thoughts

I'd like to share some frank ideas about what I have noticed over the past few years at African violet shows and how we may reduce the risk of spreading thrips at shows. I don't think I've seen a show schedule that does not say 'Only clean, healthy plants will be accepted'. Yet, I see plants with obvious thrips infestations at prestigious shows. Some of them are so obvious (pollen raining down from dozens of blossoms) that I have to shake my head. My own club inspects incoming show plants carefully, with a lighted magnifying glass. I inspect my own plants this way all year long, especially at show time. I've frequently heard about passing committees being told that they can look at plants, but not with a magnifying glass. So, you can look, but not TOO closely? This makes no sense. In addition, if somebody brings a box of plants to our local show and one has thrips, the rest of the plants go home as well. The other plants are almost certainly infested, even if the thrips are not visible. There are reasonable exceptions. Plants grown in another area of the home may not be infested. At the very least, all the other plants will receive extra scrutiny. Thrips running around a blossom DID NOT land on the plant as it went from the car to the show room. Those are larvae; they don't fly and they hatched on that plant. Adult thrips will hop or jump when disturbed – their way of flying.

Perhaps this attitude stems from the belief that thrips can be controlled, but not eliminated. In a way, I can understand this. Eliminating thrips takes a lot of hard work. I estimate that I spent

30-40 hours of my time getting rid of this recent problem. It wasn't fun, but I got the job done. If you truly believe that you can't eliminate the problem in your collection, why not leave your plants at home rather than risk infesting a fellow grower's collection with resistant thrips that they may have a hard time eliminating?

Many people have decided to never bring plants home from a show. They sell them or give them away. That's a workable solution for some people. However, I have plants that have taken many months to grow to a large size. I also have 'good' strains of some desirable plants that I would be reluctant to let go. It would also mean I bring closer to 4 or 5 plants to a show, rather than 40 or 50. If we want to continue the sad trend toward ever smaller shows, this is certainly the way to achieve that goal. And what does that say about our society if we are so distrustful of our fellow growers that we have to abandon plants to protect the rest of our collection?

We will never totally eliminate the risk of pests and diseases from showing plants, but we can mitigate the risk by being more diligent in screening entries. Be sure your club educates growers on avoiding and eliminating pests and diseases. Stress the importance of isolating new plants before they come into your collection. The Passing and Classification committees have some of the most important jobs in our shows. Be sure they are familiar with the signs of thrips and other pests and diseases. Give them the tools to do the job, like a lighted magnifying glass, and give them the right to inspect each plant and eliminate any and all plants that are not clean and healthy. The purpose of our shows is to educate the public. Let's set a good example and do our part to keep our violet collections healthy.