BEGONIA CHATTER

Newsletter of the Astro Branch of the American Begonia Society

FOUNDER: THOMAS KEEPIN

Astro Branch American Begonia Society 10592A Fuqua Street, Box 398 Houston, Texas 77089	*Next Meeting:* DATE: February 5, 2023 TIME: 2:00 P.M. PLACE: Plants for All Seasons, 21328 State Hwy 249 PROGRAM: Terrarium Begonias with Leora Fuentes
February 1, 2023 Issue	www.begoniahouston.org

President:	Vice President:	Treasurer:	Secretary:
Midge Gorman	Kathleen Murphy	Ann Stiefel	Gloria Hunter

President's Notes

Happy February my friends. I was not able to make the January meeting but I have heard it was great, Cheryl always puts on a wonderful program. Thank you, Cheryl. I am so looking forward to our February program by Leora Fuentes. She is always a treat for this group.

I have been a bit under the weather so this will be a short note from me this time. Little stint in the hospital but I will be at the meeting, ONE WAY OR ANOTHER. I do hope many of you will be able to make the meeting. We really miss those of you who have not been able to be with us. This is a really fun, and very nice, group of people. We look forward to seeing you.

Cheers to you all,

-Midge

February 5, 2023 Astro meeting

The February meeting of the Astro Branch of the American Begonia Society will be held at Plants For All Seasons located at 21328 State Highway 249, Houston, TX. Their telephone number is 281-376-1646. We have the meeting room from 1:00 P.M. to 4:00 P.M.

Rosa Brennan and Ann Stiefel will be our hostesses.

Our guest speaker for our January meeting will be Leora Fuentes who was unable to make it to our January meeting. She will be sharing her extensive knowledge about keeping begonias in a contained atmosphere. Leora will also have specimens available for purchase, so be sure to save your lunch money this week!

Right: Begonia seed bank

January 8, 2023 Astro meeting notes

In Midge Gorman's absence, Janet Carpenter ran the meeting.

The notes for the December Astro meeting were approved.

The hosts—Jennifer Francois, Janet Carpenter, and Kathleen Murphy were thanked for hosting our lunch.

Ann Stiefel reports that Astro's bank balance is $4,959.72.

Membership Coordinator Jennifer Francois proposed that all members pay their annual dues in January of each year. After discussion, a motion was made proposing same, and seconded. The motion was carried unanimously.

Cheryl Lenert announced that she was tapped to be the program coordinator for the upcoming SWR/ABS convention in Tyler, Texas. Let her know if you have seen any programs that you found especially useful. She welcomes ideas for programs.

The hosts for the February meeting will be Rosa and Ann.

Janet reports that the seed team (Cheryl, Kathleen, Tom, and herself) have been busy processing seeds that they receive from members. Seeds are selling very well. 247 packets of seeds were sold last quarter.

Leora was unable to attend and we look forward to her program on contained atmosphere begonias next time.

Cheryl Lenert presented a program on collecting and planting seeds.

Cheryl Lenert supervising "rolling" of seeds. Jennifer Francois and Rachel Davidson also pictured.

February Weather and Planting Guide

Weather forecast for the month:

Average temperatures should range from 39 degrees in the North to 52 degrees in the South.

The greatest chance for snow and rain in the North and areas of steady rain and thunders in the South are about February 1st thru 3rd 9th thru 11th, 15th & 16th, 17th thru 20th and 25th thru 28th.

Several severe storms expected in the South and east. Isolated showers at any time.

Unsettled.

Planting and transplanting

Cancer: 2nd, 3rd Scorpio: 12th, 13th

Pisces: 20th, 21st Taurus: 24th, 25th

Pruning (cutting)

Aries: **22nd**, **23rd** Leo: **4th**, 5th, 6th

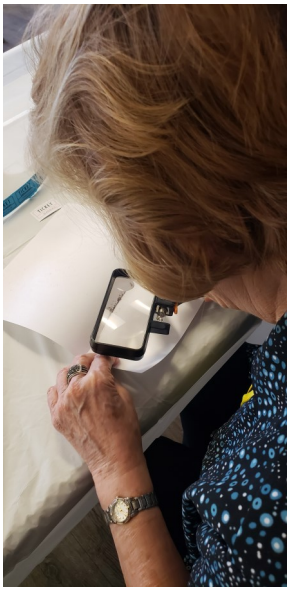
Sagittarius: 14th, 15th

(Waxing moon dates in bold)

Editor's note: After contacting member Cynthia Mueller about helping me identify worry-inducing spots on my begonias, she forwarded me a January 2023 article from The Gesneriad Society's Newsletter *Gleanings*. Alas, I think INSV may be the culprit, no thanks to those dreaded Thrips!

Author and *Gleanings*' editor Mel Grice was kind enough to allow me to share it with our members. Full attribution of "My Experience with INSV" to author Mel Grice, The Gesneriad Society.

– Rosa Brennan, *Chatter* editor



The best seeds are grenade-shaped. Ann Stiefel, left, inspecting her seeds. Right, Janet Carpenter over the seed bank.

Photos clockwise from upper, left: Tom overseeing Ann, with Irene and Mike Bragg, Jennifer; Janet, Gail, member, Kathleen, and Tom; Sue Botts, Sara Chumley, door prize B. 'Snowcap'; Rachel Davidson with her door prize begonia; Gail Warren.

Bottom row of photos: Jennifer, Mike, Irene, and Rosa Brennan (left);
Tom and Kathleen Murphy (right).

All photos by Rosa Brennan and Tom Keepin

My Experience with INSV

Mel Grice

My gesneriads were growing beautifully after I retired in 2005. They loved all of the extra attention that they were receiving. Then in early 2006 I started noticing a problem with my episcias and sinningias. The central growth point on each plant would become dried and brown colored. This would progress down the stem with each successive row of leaves drying and browning. I couldn't find anyone to tell me what was wrong with my plants. So in July of 2006, I attended my first convention of The Gesneriad Society in Rochester, NY. I described my problem to many of those expert growers in attendance. Each person gave me a different suggestion but none of them worked when I returned home and tried their suggestions.

I was at a loss for a remedy to my problem. Then I happened to read in the *African Violet Magazine* (AVM) Georgene Albrecht's column called "A Family Portrait" which was about the "other" gesneriads. She described the symptoms of a virus affecting gesneriads that exactly matched my symptoms. The virus was called Impatiens Necrotic Spot Virus (INSV). I contacted Georgene, and she became one of my mentors and dearest friends. She said that episcias were like the proverbial canary in the coal mine. Flying insects called thrips prefer the tenderest new growth points to bite and suck on the plant's juices. Thrips are the vector that spread the virus from plant to plant. Thrips bite a plant infected with INSV, and then their saliva transmits the virus to another plant when they bite the next plant.

Once I had a name for my problem, I set out to learn as much as I could about how to manage it. I decided to do everything that I could to keep this virus out of my extensive plant collection. I threw away any plants that exhibited signs of distorted growth in any form. I did not lose any varieties since it is my habit to propagate a leaf or crown from a plant every time that I repot it. I start most of my plants in Solo cups placed in 4" by 6" plastic resealable bags that are 2 mil in thickness. The cups in bags remain sealed for sometimes three or four years or more until I have time to pot them up. So I had healthy starter plants coming along that had been placed in the bags years before my INSV invasion began. I used these healthy plants to replace my INSV infected plants.

I learned that plants could be sent to diagnostic labs to verify the presence of INSV in a plant. The labs take multiple samples from all around the plant. A plant that grows in a rosette form may have a few newly infected leaves with INSV on one side of the plant and perfectly healthy leaves on the opposite side. The virus travels around the plant at various speeds depending on the light and temperature conditions of your growing area. Testing only one leaf can easily result in a "false negative" if you choose an uninfected or mildly infected leaf for the test. That is why multiple tests on a plant are more conclusive but add significantly to the costs of testing.

Home testing kits were also commercially available from AGDIA, Inc. located in Elkhart, IN. I ordered a few of the kits to try. These test kits were expensive at the time and gave mixed

Test kit

results. INSV is one of the *Orthotospovirus* genus of twenty viruses and the test kits were not specific to INSV. So the test kits only told you if you had a *tospovirus* — many of which are not fatal to gesneriads. The current test kits are more selective now I hope. It would be prohibitive to test a large number of plants this way. I choose to spend my money on preventative measures rather than on test kits since I now know the symptoms of infected plants.

There are many things that you can do to try to prevent acquiring INSV in your collection of plants. The MAIN THING is to not have thrips to spread the disease to your healthy plants! Some prevention measures are not mutually possible to use since they may negate the benefits of another prevention measure. In the following paragraphs I will try to describe what measures I take and explain why I chose them.

Screen door

I grow in my living areas and in a plant room that was specially constructed from half of my garage. I do not open my windows that have screens because thrips are so small that they can easily pass through standard screens. I contacted a friend who works for a greenhouse supply business, and she was able to purchase for me several yards of anti-thrips screening. Now you can purchase this online from several vendors. I used this to cover the screen door that separated my plant room in the garage from the other part of the garage where my car was kept. The anti-thrips screening material is so densely woven to prevent thrips from passing through that it looks white in color. The airflow is reduced by about 90%, so you wouldn't want this to replace your window screens.

I do not ever bring any cut flowers into my house. Garden plants stay outside. No poinsettias at Christmas or Easter lilies are ever brought in. All gesneriads that I take to a show, buy at a show, or buy through the mail are first treated in the following manner before bringing them inside my house. I first remove all flowers from the plants. Then I place the plants in a plastic container that has a lid with no holes. The container is outside my front door in the shade. (See photo on left) Then I place a No-pest strip or piece of one into the container and close the lid. I leave them there for about an hour. The No-pest strip releases a vapor that should kill any adult insects that might be on the plants inside. The No-pest strips last for several years if you seal them in a heavy freezer

bag between uses. Some people hang the No-pest strips in their plant rooms, but I would be afraid of the vapors harming me or my cats.

Isolation of all new plant material coming into your growing areas is one of the best defenses. Some people think that placing twenty new plants on the dining room table away from your growing area is isolation. Wrong! If one plant has a problem, then soon all of them will have the same problem if you have thrips. True isolation means placing each plant in a separate airtight plastic bag for six months or so to see what develops. Be sure to remove any flowers or buds that may develop because they will quickly rot and ruin the plant's foliage while inside the bag. Plastic bags come in various sizes from small to a large size to roast a turkey. Placing a plant or plants under a dome is not isolation unless the dome has no holes. Most of the domes that I have seen have adjustable air vents and thrips can easily fly into them.

Bag for roasting a turkey

Before sealing plants in a plastic bag, I repot them and scrape off as much of their original soil as possible replacing it with new soil. Thrips eggs and larvae may have fallen off into the top inch of the original soil, and the No-pest strips would not have killed them. I add Marathon (Imidacloprid) to the soil and spray any plants or leaves before placing in a bag with a mixture of ingredients that I first learned from Pat Hancock. Her spray recipe is:

½ tsp. Avid (a miticide)
½ tsp. Conserve (an insecticide)
1 tsp. Neem oil (I use 70% Neem oil)
1 drop dish soap (Ivory or something mild, not Dawn which is a degreaser)
1 gallon warm water
I now add to this mixture 2 tsp. Martin's I.G. Regulator*

Martin's I.G. Regulator*

*(Insect Growth regulators are a relatively new tool used to combat thrips. They interrupt the development of thrips from one stage of life to the next so hopefully the thrips population will die out. They are supposed to remain effective for months unlike the other ingredients mentioned above. They are not selective so DO NOT USE THESE ON OUTSIDE PLANTS.)

I usually take off some leaves and pot them up individually in Solo cups because some leaves on an infected plant that looks healthy may not be infected yet and produce healthy plants in the future. It will be evident six months later if the plants or leaves in the plastic bags are healthy or infected just by looking at them. Anything that looks bad can be thrown away without opening the bag. Healthy looking plants can be reasonably assured of being safe to add to the collection.

Many people spray their collections with some or all of the above mentioned items every four to five days to eliminate thrips. I don't feel that I can do this because I live in my growing areas and don't feel safe potentially absorbing these chemicals on a daily basis. Systemic insecticides such as Marathon in the soil may be of limited value; thrips larvae must feed to acquire a lethal dose of the insecticide and feeding can allow transmission of the virus. I have chosen instead to introduce beneficial insects into my growing areas to eliminate thrips.

Sachet packet

I first tried using *Amblyseius cucumeris* (actually tiny predatory mites) that are less than 1mm long. They live on plant foliage and eat a variety of food, mainly small arthropods like thrips larvae soon after they hatch. They come in sachets made of non-porous paper and are essentially small bags containing a bran material and an active breeding colony of *Amblyseius cucumeris*. The sachets have a small hole through which the adult mites can venture out and fall onto your plants. I hung two sachets above each shelf of plants to supply a continual source of fresh mites ready to eat the thrips. The mites are too small to see, and I was not comfortable with ordering them in the winter months. I questioned whether they arrived alive or dead since I couldn't see them.

Next I tried using *Orious insidiosus,* a predatory insect that feeds on all stages of the life cycle of thrips. These small black insects fly and resemble a gnat or fruit fly. They are not annoying since they are not attracted to humans or human food. They are only interested in thrips and mealybugs. I only see them occasionally once they are released so I don't mind having them in my house. I order a new shipment about every four months, and I can see that they are alive when I open the bottle they come in. I do this in case any thrips have managed to enter my "anti-thrips' zone since the last time I ordered them. Some people hang yellow or blue sticky traps around their growing areas, but I can't do this because I would trap my flying beneficial insects.

Part of the frustration of dealing with INSV in gesneriads is the variability of symptoms that can develop following plant infection. Environmental conditions (temperature, light intensity, nutrition, etc.) can contribute to variable symptoms. Common symptoms of INSV infection in gesneriads can include brown leaf spots, concentric ringspots (either yellow or brown), brown stem lesions, stunting, wilting, vein browning and necrosis, and mosaic line patterns. Leaf mottling and leaf distortion are also suspicious symptoms. Although many of these symptoms can help you spot INSV in certain gesneriads, some of the symptoms might be misinterpreted as caused by viral pathogens or other factors. The MAIN GOAL is to not have thrips to spread the disease to your healthy plants!

I have already mentioned the dry brown tips exhibited in episcias and sinningias when they have become infected with INSV. Streptocarpus plants can exhibit ringspots on the leaves like the photo on the right.

Thrips have rasping jaws that often give streptocarpus blossoms a lacy appearance where bitten like shown in the photo on the right. This does not mean that the plant has INSV, but it is a good indication that you have thrips in your growing areas.

Saintpaulia plants (African violets) often display spilled pollen from the yellow anthers onto the blossoms. Disbudding your plants does not help much. Thrips will bite the leaves if there are no open blossoms.

Saintpaulia with spilled pollen

Ringspots like the ones in the photo on the right develop where thrips have infected the plant.

Primulina leaves also develop a black ringspot around the point of infection.

Saintpaulia leaf

Drymonia leaves develop almost transparent areas where infected.

Drymonia leaf

I won't say that I am ever 100% thrips free, but I try to keep my growing areas as close to zero thrips population as possible. So a plant infected with INSV can sit on a shelf with healthy plants and not infect other plants as long as you don't have thrips flying around to spread the disease. The diseased plant will eventually develop symptoms that make it look so bad that you will know to throw it away.

The MAIN GOAL is to not have thrips to spread the disease to your healthy plants!