

Petal Tones

The newsletter of the National Capital Area Chapter of
The Gesneriad Society

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May 2008

President's Message

Greetings all!

I hope everyone has gotten all of their new plants from the show and sale settled in. It's about time for our next club meeting. With this year's show behind us, it's time to start focusing on the 2009 Convention which we are hosting. Now that you've had a chance to see how much fun the plant show can be, perhaps you're ready to help out with some of the positions that are still open. Our convention chairs will give us an update at the meeting.

For this meeting's program we wanted to try some pollination to see if we can come up with some new and interesting hybrids for the Convention. We still have a couple of weeks, because our meeting is later than usual this month. So, if something is in bloom now, try saving the pollen and bring it with you.

I'm happy to report that the hybridizing that I did with the Sinningias last month was at least partially successful. From three different crosses with *Sinningia* sp. "Florianopolis" as the pollen donator, I have 3 seed pods that ripened and gave me seed. With luck, the seed will be viable and I'll be asking for your help in growing them all out. Some of the other mini Sinningias are now coming into bloom so I'll repeat the process with them.

Happy growing,
Carol

Convention 2008
July 1 – 5, Denver, Colorado

If you're thinking of going to The Gesneriad Society's convention in Denver, don't forget to make your plans soon. The registration fee will be going up on June 2. For details, see <http://gesneriadsociety.org>.

Next Meeting

Please bring pollen and flowering plants for the **hybridizing party!** Take a look at your plants and see what is getting ready to bloom. Requests for pollen can be emailed to the Editor ahead of the meeting.

And the **"Plant" of the Month** is hardy (and hardy with a little help) gesneriads, like *Ramonda*, *Haberlea* and *Conandron*, *Titanotrichum oldhamii* (photo at right), and others like *Sinningia tubiflora*, *S. sellovii*, and even some Achimenes. Growing one of these? Please bring it with you!



Website Update!

Many thanks to Jim Hipple for updating our website with Show photos and the dates for our fall meetings!

In this Issue.....

Hybridizing for green-flowered Saintpaulia! How to store pollen. Cultural notes for growing Chiritas. Hybridizing 101 (aka "It's not a daunting task, really it isn't"). Wish Lists.

Upcoming Events:

Next Meeting: May 17, 2008 at 10:30 am, at the National Arboretum, Washington, D.C.

Go for Green!

by Dale Martens, Illinois

If you want long lasting flowers, go for green! What started my hybridizing efforts to create green flowers was that a few years ago I had entered Heinz's Harbour Lights (Heinz Dornbusch, hybridizer) at my local club's show in mid-April and entered it again after removing only 3 flowers at the AVSA convention at the end of May. That means some of my flowers were already 10 weeks old at the time of the local show and then 16 weeks old by the time of the AVSA convention. I grew it on the bottom shelf, so it had cool conditions and mostly 65 degrees at night and 85 in the day time. After the AVSA convention I removed all of the flowers because I didn't want to lose the center of the plant as it was totally blocked from light due to the massive head of flowers. Had I left them on the plant, I bet they would have lasted for weeks longer. I gave away zillions of leaves right there at the convention.

Saintpaulia 'Heartland's Lime Sherbet'



©2008 Dale Martens

I had consulted Dr. Jeff Smith about chimeras and he told me that the dominant color would be the center stripe. I used the green/white stripe chimera 'Emerald City' and the green/lavender stripe chimera 'Yukako' in the parentage of my hybrids in order to get longer lasting flowers. The big problem with green AVs is that they often are not cooperative for breeding. Some have tiny pollen sacs without pollen. I'm thinking 'Irish Flirt'. I've also had challenges using the green flowers as mothers. It's strange because some of them seem to self . . . yet after a "false pregnancy" of 6 months or so, there are no

seeds in the pods. Even using 'Yukako' as a mother, I got few seeds. Out of nine seed pods, only two had seeds. As far as 'Yukako' is concerned, selfing it proved that nine out of ten seedlings dominated with green color, proving Dr. Smith right about the genetic dominance of the center stripe color. The only purple one to flower had a strange dull green cast to it.

So far I've named 3 hybrids. The parentage of 'Heartland's Lime Sherbet' and 'Heartland's Heirloom Lace' are ('Emerald City' x 'Louisiana Lagniappe'). When I selfed 'Yukako' I named the most unusual one 'Heartland's Lime Bubbles'. On April 19, 2008, the Quad Cities African Violet Society had a big show and sale. My entry of 'Heartland's Heirloom Lace' won Best in Show! I got Best in Class for 'Heartland's Lime Bubbles'. The public went wild over my hybrids, and I could have been rich had I had young plants for sale.

The piece below is re-printed with Dale Martens' kind permission. The Gesneriphiles email list can be found at:

<http://lists.ibiblio.org/mailman/listinfo/gesneriphiles>

Storing and Sending Pollen

From: Dale Martens
To: Gesneriphiles
Date: Wed, Apr 16, 2008

I promised someone I'd send him pollen from *Streptocarpus* 'Dale's Scarlet Macaw'. When I send pollen, I use a non-white paper so that the pollen shows easier when the recipient attempts to use it. In this case I found some blue colored wrapping tissue, the type used to gift wrap clothing inside a box. One would not want to use wax paper as that is not absorbent. I cut a 2 inch section and fold it as if I were sending seeds to someone. These folded papers can then be placed in small glassines (as used for stamp collectors) or in normal envelopes and labeled with the name of the plant and the date. I was able to successfully pollinate *Sinningia pusilla* with pollen from Karyn Cichocki of *Sn. sp.* "Santa

Teresa" that had been stored for a month at room temperature, although it probably should have been stored in the refrigerator. Not sure how long pollen keeps, so a study could be done on that.

I also like to include filaments on the anthers. By the time they arrive at the hybridizer's house, the filaments are dried out. In this case with *Streptocarpus*, think of the anthers with filaments attached as "wish bones" on a turkey. When the anthers are pulled apart, there is a puff of pollen released in the air.



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The hybridizer can pick up the dried filament with a pair of tweezers and directly touch the pollen containing side of the anther to the stigma of the potential mother. If the pollen has spilled onto the paper, then the hybridizer can either scrape pollen off the paper with a finger nail or with an artist's brush.

Many of my hybrids were created because someone sent me pollen in the mail. This includes 'Dale's Scarlet Macaw' because Helen Bortvedt sent me pollen from her *S. dunnii* which I placed onto 'Texas Hot Chili'.

What excited me about this particular photo was that DSM's anthers have a bright crimson color on them!

Dale in Illinois

"Plant" of the Month – Cold Hardy Gesneriads

by Kyoko Imai

Now that our last frost date is gone and summer's around the corner, no doubt many of you are gardening outdoors. Do you have any gesneriads in your perennial beds? Please share your experiences at the next meeting, and bring plants to show-and-tell if you can.

Most of this area being in zones 7-8, there's a good selection of gesneriads that could grow outside, some with a little extra care (especially protection from sleet and winter rain). Even commercial nurseries are offering some *Achimenes* for zone 7b, and some *Sinningia* for zone 8.

My outdoor space is a balcony which is a zone or two colder than the ground. Even here, *Titanotrichum oldhamii* has no problem spending the winter outside, potted right next to toad lilies and Solomon's Seal. *Sinningia leucotricha* and *S. 'Tampa Bay Beauty'* x self were over-wintered inside but have been happily living outside for the past few weeks. If I could put a cold frame on my balcony, I'd probably leave them outside. I also put *Sinningia tubiflora* tubers out a few weeks ago, but now I'm fretting that the mix was too heavy for the "potatoes" to withstand our last round of cold **wet** nights on a balcony without turning to mush. I have my fingers crossed....

Since there's still no sign of my *Titanotrichum*, I'm bringing you a photo of *Sinningia tubiflora* breaking dormancy in the garden of Kevin Jones in South Carolina (zone 8):



©2008 Kevin Jones

Growing Chiritas

by Carol Hamelink

Chiritas are one of my favorite gesneriad genera because they are fairly easy to grow and don't have any dormant period. Of course, not all Chiritas are equal and some are more difficult to grow than others. As well, there are many ways to grow all of these plants, so think about your own situation if you are considering making any changes.

My basic soil mix for all of my gesneriads is half Pro-mix and half perlite with a generous handful of horticultural charcoal thrown in. That's probably half a cup of charcoal for each gallon of mix. Charcoal is supposed to keep the soil "sweet", although there is debate over whether it does anything useful. I've not found it to be harmful and do like the way it keeps the bottom of the bowls that I sometimes grow episcias in from turning green. So I mix it into all my soil- just to keep things simple.

The thing probably said most about Chiritas is that they like to be under potted, slightly dry and not too hot. This is great because it means they can survive occasional neglect. I wick everything I grow, since they tend to die from excessive neglect if I don't. I even wick Chiritas. This can be a bit of a challenge, since they can get too wet this way. My options are to lighten the soil even further, by adding more perlite, or occasionally take the wicks out of the reservoirs. I usually end up watching them as they are growing so I can dry them out on occasion by removing the wicks from the reservoirs. I try to grow all of my Chiritas on the bottom shelf of my grow stands. That way I see them easily to notice when they're wilting, or otherwise not happy. It is easier to revive a wilted plant than an over watered plant.

This also means that I fertilize these plants continuously. I use the traditional ¼ teaspoon of a balanced fertilizer for each gallon of water. [*Carol reports that ¼ teasp. of 20-20-20 is not too strong. -Ed.*] "Balanced" refers to an equal ratio of the 3 main ingredients: nitrogen, phosphorus, and potassium. As two of my light stands are on the second floor of the house, it tends to get a bit warm in the summer. During the summer months when the plants are going through rapid respiration, I use only 1/8 of a teaspoon of fertilizer per gallon. A plant that is getting too much fertilizer will need to find a

way to get rid of it. This can be seen as small orange crystals attached to the hairs of the leaves, which is most noticeable in the very center of the crown. Excessive fertilizer can cause poor growth and stunting in the crown. I've heard it said that it is a good idea to rotate the brand of fertilizer that you use, since they all have differing amounts of the trace elements such as zinc, copper and magnesium. I try to rotate through 3 different brands, although it's not a rigid schedule and I often use whichever one is handy. I also don't leach my plants, which is suggested for the wick-watering method. This involves running plain unfertilized water through the plant pot once a month to flush out fertilizer build up. I do, however, try to wash the reservoirs every three months which may help to keep the fertilizer from becoming excessively concentrated in the trays due to evaporation of the water. Although it's a lot of work, the plants seem to perk up right after I do this, so when plant growth seems to be stagnating, I'll take a weekend and clean all of the reservoirs. That usually means that I'm also spraying them all. I have an ongoing battle with powdery mildew. Every season change will bring it on again. So, while I have the plants off of the stand to do the tray cleaning, I also spray all of the plants.



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Top left to right: *sinensis* (dwarf), USBRG 98-083, 'Hisako'
Bottom left to right: 'Betty', 'Diane Marie', *schlerophylla*, tamiana, 'Little Dragon'

Propagation of chirita is usually done from a single leaf. If it's a large leafed variety like *sinensis*, I trim the leaf so it is about 1 inch square leaf blade with about ½ inch of stem. This tends to make the leaf focus its energy on producing prodigy instead of growing the leaf bigger. I submerge the stem up to the leaf portion in my usual potting mix, no more

than a half inch of mix in the bottom of a solo cup. Some of the fleshier varieties like 98-083 tend to be a little bit harder to propagate in this manner, but if you're lucky and have stolons, you can propagate from those as well. I always cover the propagation trays to help keep the humidity a bit higher and because I tend to under water these trays and can lose leaves if I don't. Once the leaves have visible babies I remove the domes from the trays to increase the light. I put all newly separated baby plants back under the covered trays for a couple of weeks to help them survive the trauma I've inflicted on the roots. After that they are ready to join the wicking community. I give them their own tray to begin with because I tend to see the fertilizer crystals in the centers if I start them on my usual ¼ teaspoon fertilizer per gallon water. I usually start them on the reduced 1/8 teaspoon fertilizer per gallon for two weeks (about the length of time my reservoir lasts).

If you missed Carol's article on growing under lights, check out the September 2007 issue, available on our website. It includes some great information on growing Chiritas.

*** Wish Lists ***

Jim Roberts:

- Gasteranthus* - any
- Gesneria cuneifolia*
- Gesneria reticulata*

Brian Connor:

- Phinaea multiflora* 'Tracery'
- Nematanthus* 'Apres', 'Christmas Holly' or 'Black Gold'
- Columnea minor*
- Kohleria* 'Red Rider'
- Gesneria* 'Lemon Drop'

Kyoko Imai:

- Chirita* pollen
- Chirita* Little Dragon
- Codonanthe carnosa* – Looking for *carnosa* with big robust leaves. (I already have the one with smaller leaves that is in circulation as *carnosa*.)



Hybridizing - the Bare Basics

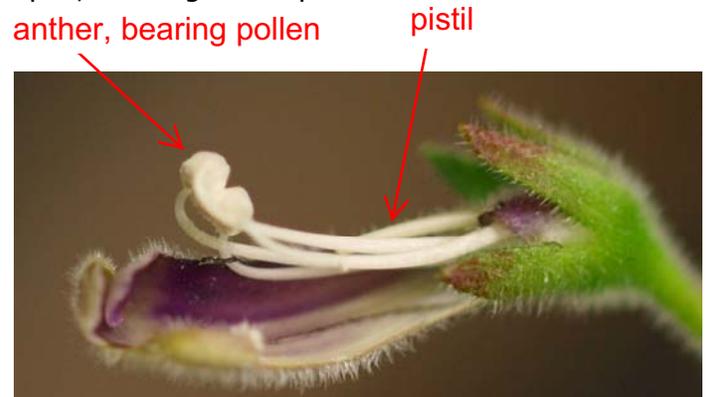
by Kyoko Imai

A good hybridizing program requires patience, vision, knowledge, dedication, and luck (and probably some secret ingredients). But, breaking it down to the bare basics, hybridizing requires only that you pollinate a flower and then grow out the seeds. Pollinating is easy (with some exceptions), and then all you need is to find a good spot to grow seedlings.

Total time from seed-sowing to blooming for some faster-blooming gesneriads is about 4 months. As for caring for the seedlings, I'll let you in on a little secret: I've sometimes sown seed and forgotten about them for months, only to find a Ziploc bag of blooming seedlings. Talk about low maintenance! (No, it's not recommended culture, but sometimes it can't be helped....)

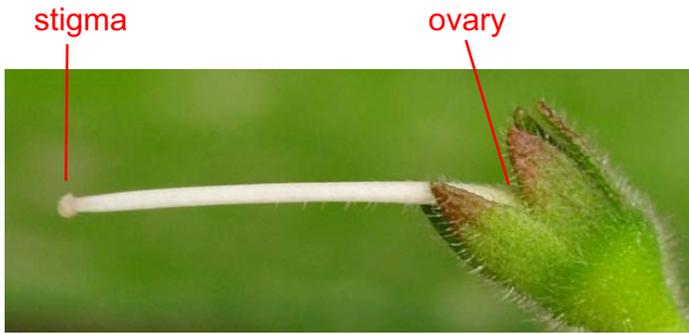
A couple of years ago, I did a little "demonstration" cross of Streptocarpus, just to show how it's a fairly manageable process, and to show what kind of plants resulted from the cross. Quite rudimentary but I hope informative for those of you who are new to crossing and growing from seed.

But first, a couple of photos of some flower parts. This is a mini Sinningia hybrid that has a tendency to self pollinate. Here's a picture of a bud that I cut open, showing lots of pollen:



The basic idea is to take that pollen and stick it on a stigma. The stigma is the part at the tip of the pistil. In the photo above, the pistil is still short (and pretty much invisible...). As the bud develops, the pistil elongates so that it looks like this:

ovary



I took this is a photo after I pulled the petals and anthers off an open flower. With this particular plant, by the time the flower is open the pistil will be long enough that the stigma touches pollen, resulting in self-pollination. That means that if I want to use the plant as a mother, I have to cut open **buds** and remove the anthers while the pistil is still short (like in the photo on the previous page).

And now for the Streptocarpus cross:

Mom (white)

Small narrow-leaved plant. Simple flowers, 1-2 flowers per flower stem, opening sequentially. Flower frequently not fully opening. Generally not a strong grower.

x

Dad (purple)

Frilly floriferous purple-flowered plant descended from Park Seed's Royal series. Big wide wavy leaves. Very easy grower (albeit a thirsty one).

I hoped to get a white-flowered Streptocarpus with narrow leaves like the mother, but one that was a stronger grower, with more than one flower open at a time, and flowers that opened more fully.

Because the white Streptocarpus often self-pollinated, I literally ripped the petals and anthers off the flower first, leaving just the pistil on the plant. I then dusted the stigma with pollen from the father.

I should emphasize that I'm not much good at growing Streptocarpus, so this is just an average grower's report - you might get seedlings to bloom even faster.

November 30

Harvested seed, and dried in an envelope. *Streptos* (twisted) *carpus* (fruit):



December 5 – sowed some 15-20 seeds in sterilized potting mix in two pots, placed them in a Ziploc freezer bag, and placed them under fluorescent lights.

January 1

squeezed the pots, fed with very dilute fertilizer, and opened the bag a little.



January 25

The seedlings were potted on into mini compots (3 or 4 plants per pot), each pot with 2-3 pellets of Nutricote slow release fertilizer (13-13-13) about 3/4 of the way down.



February 11 – The photos below compare January 25 to February 11 (17 days' growth).



March 13

(14 weeks since sowing) – first buds noticed.



March 31

(about 4 months from sowing) - first bloom.



The first flower looked almost exactly like the mother plant's, although the plant itself was a much more vigorous grower. There were also three buds on this stem, while the mother plant only had two.

April 17 - most bloomed by this date. I got both purple and white flowers, with varying degrees of frill. Some had one flower per stem, one had three, and most had two sequentially blooming flowers.

The next photograph shows a frillier white - frills from the father, and color from the mother. The leaves were narrow like the mother, but bigger. Next to it is a purple flower (the camera thinks it was blue but it was actually purple) – the flower shape is closer to the mother, and the color is from the father. The flower size was a bit bigger than the mother.



You can see how the frills come from the father, which looked something like this:



My pick was this white-flowered plant. The flowers were more open and bigger than the mother, and more than one opened at a time. The plant itself grew better as well.



There you have it. Fairly easy and fairly quick.

Now, if you're hybridizing to name and release/share hybrids, the real work comes after this. From your seedlings, select the ones that look promising, and then grow them on. How are the second round of blooms? Growth habit? When you propagate it, are the plant characteristics stable? Is it similar to a cultivar that already exists?

If you are interested in learning more about hybridizing gesneriads, check out the Gesneriad Hybridizer's Association. Their newsletter is fabulous. More information here: <http://www.gesneriadsociety.org/publications2.htm>

One final photo: seed pots in a clear, lidded plastic box on my shelf:



National Capital Area Chapter (NCAC), a chapter of the Gesneriad Society, Inc. "The purpose of the chapter shall be to afford a convenient and beneficial association of persons interested in gesneriads; to stimulate a widespread interest in the identification, correct nomenclature, culture, and propagation of gesneriads; and to encourage the origination and introduction of new cultivars." (NCAC bylaws, revised April 1981.)

NCAC usually meets four times a year, September through June, at 10:30 am on the second Saturday of the month. All are welcome. Please refer to the latest issue of *Petal Tones*, or contact our chapter president (Carol Hamelink) or publicity and membership chair (John Boggan) for more information.

The Gesneriad Society website: www.gesneriadsociety.org **NCAC website:** www.nationalcapitalgesneriads.org

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