BROMELIAD SOCIETY OF SAN FRANCISCO

MAY 2011

NEWSLETTER

Our next meeting will be held on **Thursday, May 19, 2011** at 7:00 PM
Conservatory of Flowers, 100 John F. Kennedy Drive, Golden Gate Park, San Francisco

May Program

Field Trip to Conservatory of Flowers

This month we will be visiting the Conservatory of Flowers in Golden Gate Park. This will be our third visit since the remodeling. To maximize the remaining daylight for viewing the plants, **we will start the meeting promptly at 7 P.M**. Please try to be at the main entrance by 6:45 P.M. (100 John F. Kennedy Drive, Golden Gate Park). Hopefully, we will have time to observe the greenhouses where the plants are grown.

Mario Vega is the nursery specialist in charge of bromeliads and will be our guide. He has been at the conservatory for about 3 ½ years after leaving a job as a tropical plant wholesaler. We will still have refreshments, and a plant raffle table.

May Refreshments

Roger Lane signed up for refreshments this month**.**

Look for a building like this in Golden Gate Park and you will have found our meeting spot for this month. Photo is courtesy of Conservatory of Flowers.

April Meeting

Dr. **Guillermo Rivera** was our speaker last month. He was visiting California to be a speaker at the National Cactus and Succulent Conference in San Diego. Guillermo spoke to us on the bromeliads of Argentina with the focus on the varying types of habitats that bromeliads are found. Although his slides did not include all of the bromeliads found in Argentina, he did list all the genera that are found and included many of the plants that we have seen on our trips with him. Some of our members had asked him about *Tillandsia peiranoi* (endemic to Argentina) on a previous visit and he included a photo in this show that he had taken by holding his camera high over his head. Obviously, this plant is not easily found.

Fertilizer

This article by Kathy Dorr is reprinted from the April 1986 newsletter of the Bromeliad Study Group of Northern California

Over the years my fertilizer routines have ranged from half-strength 5-10-5, 15-30-15 or 20-20-20 to no fertilizer at all. My recent practice of not fertilizing at all or only three times at 25% strength in June, July, and August produced optimum growth habit and compactness for most bromels, but weaker inflorescences. A closer look at each genus and particular species reveals that you must adjust your fertilizing to their different, specific needs.

Plants growing under lights get pretty mkuch the same light regardless of the season, so they should be fertilized on a year round basis (depending on the genus). Bromels grown under natural light probably don't require feeding during the dark months of November through February, except Tillandsias which can be foliar fed all year.

The general consensus among growers is to use a 15-30-15 formula in March and April, a 20-20-20- formula in May through August and a 10-30-20 formula the rest of the time. The strength of the formulas can be varied from 25% to 50%, depending on the amount of light a plant receives. Slow-release osmocote 14-14-14 pellets placed in or on the mix can substitute for or supplement steady fertilizing. They last about three months.

I have always fertilized Tillandsias and conclude that this is a most beneficial practice. Indoor grown Tillandsias grow very slowly and are stingy puppers. I don't believe indoor grown Tillandsias can take a steady strong fertilizing. They do at the Sonora Desert Museum in Arizona to get those huge clumps of giant Tillandsias that we saw at the World Bromeliad Conference in Los Angeles. However, a weekly or bi-weekly foliar spray of 10-30-20 or 20-20-20 soluble fertilizer seems to spur leaf growth and pupping and it encourages flowering.

I fertilize Cryptanthus and other bromels I grow under lights the year round. The Cryptanthus get fed monthly with one-third strength fertilizer of whatever formula I'm using and they have osmocote pellets in their mix.

Guzmanias and Vrieseas seem to need frequent feeding to produce decent sized inflorescences. Plants such as *Guzmania* Amaranth *G.* Cherry, *G.* Orangeade, etc. strangely want only moderate light, but steady fertilizer. I use a 25% to 33% strength solution in the cups every three/four weeks and have osmocote pellets in the mix.

This routine produced a large multi-branched inflorescence on *Vriesea* Polemannii, whereas with minimal or no fertilizer, the plant bloomed with only one spike. True, this practice produces a much larger, spreading plant than I would like, but a puny inflorescence is a big disappointment.

On the other hand, most Aechmeas do well with minimal feeding of 25% strength fertilizer every month from May to September only. I fertilize *Aechmea chantinii* only every second month during this period because it tends to spread out too much with fertilizer. Use a lower nitrogen formula of 10-30-20 on the Aechmeas to restrict the effect of feeding on leaf growth. But don't feed Neoregelias at all.

However, when a plant has reached maturity and is near to pupping, fertilize every two to three weeks with 10-30-20 at 50% strength to try to produce robust blooming.

Pollen Preservation or How to Build Your Own Bromeliad

This article by Don Beadle (Mr. Billbergia) is reprinted from the April 1986 newsletter of the Bromeliad Study Group of Northern California

Early on in collecting and raising Billbergias it seemed reasonable to me that most of the hybrid bills were from 'marriages of convenience' and occurred when bloom periods naturally coincided in the hybridizer's greenhouse. My observations and records of bloom periods over several years have confirmed this most of the time (more of this in a future article).

My early efforts were limited to crossing and reverse crossing whatever was ready each morning. This process resulted in a lot of 'cousins' which carried strong family resemblances, but few beauty contest winners. Billbergias seem to bloom in an orderly and predictable fashion throughout the year with few in bloom in August or September and with the majority in bloom December through March.

The hybrids seem more erratic and variable. However, Claude Ward's *Billbergia* Muriel Waterman is usually blooming for the annual flower show while most of my clones are bloomed out two to three weeks earlier. The desire to cross *B.* Muriel Waterman as a pollen parent to one of the late spring bloomers resulted in my reading up on pollen preservation.

That didn't take long. The only reference I found said it wouldn't work.

I therefore put on my bifocals and began collecting ripe pollen in Ziploc plastic bags labeled with the donor plant's identity and the date. The bags were stored in a corner of the refrigerator. Within a few days, mildew or mold had destroyed most of the materials and so I moved the bags up to the freezer.

This apparently worked fine because the mother bills never suspected they were being artificially impregnated and placidly accepted the chilly pollen. There seemed no problem with obtaining crosses with pollen up to 60 days old, The acceptance rate seemed to drop off after 60 days but crosses have been successfully made with pollen frozen 10 ½ months.

If any unusual genetic deficiency or weakness occurred in the hybrids from these crosses, it has not yet become apparent. It also seemed to make no difference whether the pollen was allowed to thaw out first.

Frozen pollen seems to become dry, fine and hard to handle with toothpicks, pencil tips or other solid pollinating tools. I've regularly used a small artist's brush for years with no trouble. In fact, some of my hybrids have incontestably demonstrated that I've transferred a little too much pollen. On these rare and embarrassing occasions, the value of thorough record keeping is obvious. One at least knows where to start looking for the pups' proper identity.

Species bill pollen is apparently 'stronger' than the more exotic hybrids and is viable over a longer period of time. I've had great difficult problems setting seed on bills like *Billbergia* Fascinator, *B.* Manda's Othello, *B.* Fantasia, *B.* Muriel Waterman, *B.* Gerda, etc. *Billbergia pyramidalis*, *B. nutans*, and similar bills are willing to mate with almost anything.

Repeated reference to the ease of hybridizing bills is made in most of the bromeliad literature. My records indicate I get seed to set in about 20% of my attempts and when I attempt selfing my success rate drops to under 10% (even dealing with species bills) and believe me, I try hard.

I'll concede that the private parts are perhaps a bit handier on bills, but they are as delicate, stubborn, difficult and cranky as any of the other genera.

Well, now that you know how to preserve pollen, go on out and build your own bromeliad!

June Plant Sale

Our combined plant sale with the San Francisco Succulent and Cactus Society will be on **June 11th** and **12th** this year at the County Fair Building. Setup will be on Friday, June 10th from 2 PM to 8 PM. **We must be out of the building at 8 PM on Friday evening**. Sale schedule is

- Saturday - Setup: 8 AM to 9 AM, Sale: 9 AM to 5 PM
- Sunday - Setup: 8 AM to 9 AM, Sale: 9 AM to 4:30 PM, Clean-up: 4:30 PM to 6:30 PM

This is our **main annual event that brings in money to support** the society. Start setting aside your plants for the sale and save these dates to help on the sale.

Since this is such an important event for our society, we really need as much support as you can provide. You can help in three ways:

- Entering some of your premium plants in our Bromeliad display area
- Selling your own plants
- Working at the show/sale.

Remember if you plan to sell your plants, **25%** of the sales will be kept by the club.

If you are selling plants at this sale **Roger Lane** will be the collector of your bar code requests up until May 19th. There will be a form to request your price codes at this month's meeting. If you can not provide you request at this month's meeting you have until **Saturday May 30th** to mail them to **Frank Bloss** (address is on bar code form). **No bar code requests will be accepted after this date.** The bar code sheets have 80 bar code items per sheet and they are more impervious to water than our old tags. You can not mix prices per sheet (all 80 items per sheet must be same price). **There is a $2.00 charge per sheet and $5.00 to mail them to your home**. If you can not make our May meeting and need the bar code form, call Frank Bloss at 831-722-1446 or e-mail Frank at frank.bloss@sbcglobal.net.

One of the conditions of selling your plants is helping out at the sale for a minimum of 4 hours during Saturday or Sunday. Let's try not to have everyone sign up only for the last 4 hours on Sunday.

We always have a three-table display of show-quality plants from our personal collections. Last year our display was found to be rather skimpy and we must do better this year. There will be a signup sheet for display plants at this month's meeting. We are usually short of tillandsias for the background screen.

Please start saving your boxes and paper bags. We never seem to have enough on the second day of the sale.

Strybing 45th Annual Spring Plant Sale

Our contribution to the Strybing Sale in selling bromeliads was a great success. We do not know how much money we made for Strybing but attendance on Friday, April 30th was great as it always is. The bromeliads grown by the Strybing Volunteer were well grown and attractive as usual and sold well.

We want to thank all of our members who contributed their plants and time for this sale in which our society makes no money – everything goes to Strybing. This sale does provide us the opportunity to promote our society, our June sale, and other activities that we have planned.

Puya raimondii

This article by Dr. Martin Cardenas is reprinted from the April 1988 newsletter of the South Bay Bromeliad Associates

The first naturalist to see *Puya raimondii* Harms was apparently A. D'Orbigny, who saw it between Cochabamba and Santa Cruz, Bolivia in October 1830. In his Voyage dans l'Amerique Meridionale he remarks that he was astonished by a large isolated and roundish plant on a grassy slope where no other trees were seen. When he approached the plant, of course not in flower, he thought it was an Agave.

The name of this giant Puya commemorates the well-known Italian scientist Antonio Raimondi, who resided in Peru for many years and made wide botanical explorations there. He discovered this species in Peru and published it as *Pourretia gigantea* in El Peru, Volume 1, page 297, 1874. As the epithet "gigantea" had already been used in Puya by Philippi for a Chilean species, the botanist Harms renamed the plant for Raimondi in 1928.

The great German botanist T. Herzog, in 1911, took pictures of about fifty *P. raimondii* in full flower on the Andean slopes near Araca, Dept. of La Paz, Bolivia. Probably no other scientist has ever seen such a magnificent sight.

In September, 1951, I saw *Puya raimondii* in flower between Cochabamba and de Huakanqui, at 3400 meters altitude, and showed him [Mulford Foster – ed.] a *P. raimondii* in flower. We both took pictures in kodachrome. A picture by Foster was published in the National Geographic Magazine in October, 1950, and shows a ladder against the puya to let a boy climb to the top and collect the flowers. The other picture in that article, without any people around the plant, was taken by me. Later, we saw *P. raimondii* at the granite quarry of Comanche near La Paz at 3800 meters altitude.

In September, 1951, I saw *P. raimondii* in flower between Cochabamba and Santa Cruz at a place called Kayarani, which in Quechua, means "place of Puya." I had two boys collect nectar from the hundreds of flowers into a jar, and took motion pictures of this plant with a large hummingbird flying around its flowers.

In January, 1966, while travelling the same route as D'Orbigny, I saw near Vacas Lakes, hundreds of *P. raimondii*. These were not flowering and looked very much like Agaves, with each plant forming a giant ball of leaves. I took pictures showing this striking ball silhouette. Seeds were taken to send to the University of California Botanical Garden, Berkeley, California. Later this year I plan to visit the Vacas Lakes again, where there are so many hundreds of plants of this rare species in the hope that I will find them in flower.

Editor's Note: Although this is definitely not a plant for the home garden, many members have written asking about seed. Those who attempt to grow this largest of all bromeliads should remember the following: It likes high altitudes, around 10,000 to 12,000 feet; it will eventually have a circumference of eight feet and attain such a height that it would take a long stepladder to reach the first flower; it lives for approximately 150 years and like all bromeliads, does not bloom until it is mature; after it flowers, the plant dies.

Habitat photo of Puya raimondii is in Rodales National Park, Peru. Photo is by Jamie Bush and is courtesy of the Florida Council of Bromeliad Societies.

BROMELIAD SOCIETY OF SAN FRANCISCO (BSSF)
The BSSF is a non-profit educational organization promoting the study and cultivation of bromeliads. The BSSF meets monthly on the 3rd Thursday at 7:30 PM in the Recreation room of the San Francisco County Fair Building, 9th Avenue at Lincoln Way, Golden Gate Park, San Francisco. Meetings feature educational lectures and displays of plants. Go to the affiliate section of the BSI webpage for information about our meetings.

The BSSF publishes a monthly newsletter that comes with the membership. Annual dues are single ($15), dual ($20). To join the BSSF, mail your name(s), address, telephone number, e-mail address, and check made payable to the BSSF to:
Harold Charns, BSSF Treasurer, 255 States Street, San Francisco, CA 94114-1405.

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OF
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Join us at the Conservatory of Flowers this month!