Hibiscus International

April May June 2010 **Vol.10 No2-Issue43**

Tah. Christmas Angel

Richard Johnson

Tah. Purple Odyessy

SPECIAL POINTS OF INTEREST:

- Presidents Message Page 1
- Editors Report Page 2

INSIDE THIS ISSUE:

PRESIDENTS REPORT

Dear Hibiscus Friends:

It is amazing but two years have flown by and my second (non consecutive) term as President of the IHS is coming to a close. I've been fortunate to have a very responsive Board of Directors to work with, and we have together accomplished most everything I had intended to get done during my term.

Hibiscus International has been reinstated after a several years of inactivity and is running flawlessly with Jim Purdie as editor.

This IHS auction, also inactive for a number of years, has been resurrected and is functioning optimally under the direction of Kes Winwood. As a result our treasury has gown, which puts us on a stable financial footing, and will permit us to do more good things in the international hibiscus community.
The Nomenclature program is working well. Joseph Dimino streamlined the program so that less work was required to get new submissions completed. He has now passed this task on to Ian Rabenda who has kept it running smoothly. As of recently Brian Cheers of the AuHS, serving as the International Cultivar Registrar, has been prompt in approving new IHS registration submissions. I believe it is safe to say that the IHS nomenclature program has now established itself as a major contributor to new seedling registrations from around the world.

Our web site problems have essentially been solved. The web site chores are now divided between a team, with Ian Rabenda heading that effort. He is assisted by Kes Winwood who handles text up dates, including H.I., and, along with Ian, trouble shoots problems. Dave Cheney handles the photo updates on the home page. Jim Purdie handles all the web site set up for the TPC (trimestiral photo contest) and the SOTY/HOTY programs as well as setting up all the voting. This division of labor seems to be working well, and we have now updated most of the critical areas on the web site.

The IHS SOTY/HOTY program is working well, and new incentives have been developed to encourage participation. Nina Bjelovucic has been invaluable as the IHS HOTY Coordinator keeping all parties on track, i.e., wood to the propagation station in Sicily, distribution of wood to the trialing stations, trialing station reports to the HOTY Panel of Judges, etc. We have now selected two IHS HOTY's and we are hopeful the program will expand to become a valuable contribution to the hibiscus world, especially those that cannot participate in existing HOTY programs due to their rules or limitations.

The IHS seed bank is running smoothly with Peter Moll serving as the IHS Seed Bank Officer.

This Internal Statutes Committee has deliberated for several month and made its recommendations for statute modification to the Board Of Directors. The membership was invited to participate. The BOD has approved of those modifications and the membership will soon be voting to ratify them. Assuming they are ratified, we will have accomplished bringing the statutes up to date to better serve our current needs.

The election committee, headed by Kes Winwood and aided by Clay McGee, has now been busy for a couple of months developing the slate of new candidates for the upcoming election. With things running smoothly, I am pleased to see that the IHS will soon exercise its democratic privilege of electing a new Board of Directors.

As I close this term I take pride in noting that since its inception in year 2000 with 3 members we have grown to having two member forums, English (with 755 members) and Spanish (with members 56 and growing).

It is my sincerest wish that future presidents and their board of directors will diligently abide by the statutes and our various programs and to build upon these to further aid the IHS and it affiliates in contributing to the global hibiscus world.

Warmest Regards & Happy Hibiscus Growing To All

Dick Johnson, IHS President

EDITORS REPORT

Welcome to the Editor's Report, and I hope you enjoy the article this month in which Esteban McGrath Holliday tells his story of how he grows Hibiscus at his place and backs this up with photos of blooms and views of his property. He certainly has a steep block and he shows how he has overcome this obstacle.

Next time we are going to Germany to Ursulla Lengdobler's home and she will describe how she is able to grow her plants in a cold winter and what she has to do to make her plants survive in her in her enviroment. We do not appreciate how easy it is for us in our Tropical and sub-tropical climates where we leave our plants out all year to be able to produce flowers in abundance and do not have the problem of carrying our pots out and in with the change of the weather. What we have to do to grow and look after our favourite plants'

This time we are sending a separate supplement of how Rita Feijo Abreu from Brazil and Kes Winwood from Canada conducted an exercise with Rita sprouting her seeds and then sending them to Kes in Canada, and they arrived safely and they are quite happy with the results. The whole process is explained with text and photos of each part of the exercise and I hope you can gain some benefit from this and perhaps you would like to try and get seeds from Rita and see how they arrive at your place.

SEMBRANDO EN PUERTO RICO

By Esteban McGrath Holliday

Since arriving in Puerto Rico in 1968 after a tourist (In green) visit to Vietnam..I fell in love with the flora and fauna here at Lat 18-30 N in the Caribbean.

After operating my turn-key Engineering firm for 12 yrs we commenced as well to plant vegetables commercially on the South Coast of the island. There we began a breeding program for Abelmoscus esculenta as this vegetable was my number one seller on our 260 acre plantings annually. Later it's name was changed to Hibiscus esculenta. Many know it as Quimbombó, Bamia, Bhindi Goumbo and Okra..Honestly..even considering a field of Sunflower....An Okra field in the morning is one of the most beautiful sights to see...Imagine seeing 300,000 Hibiscus yellow flowers all around and gone by the afternoon.

In 1988 we purchased an 8 acre farm in the mountains in Guaynabo at 350M altitude over sea level only minutes from our home in San Juan with the intent of doing a farm for Oriental fruits ...Jak fruit specifically..Bear in mind that many of the roads in the Campo (Countryside) of Puerto Rico are lined with Amapola bushes...(Red Hibiscus flowers). A red flowering..bullet proof plant cv..Well in 1997 when I had planned to sell the vegetable operation on the South Coast,,, we decided to commence plantings of Tropicals for landscaping..
After going to a plant show we immediately became aware of the local interest in flowering plants. At that time Luis Acevedo was the grower of Hibiscus rosa-sinensis on the island (135 mi x 37 mi) of Puerto Rico.
I began to acquire mother plants...but upon planting them out mostly American stock...few.... I found to be excellent for the Tropics of Puerto Rico...LEGGY PLANTS...WIDE OPEN GROWTH...sporadic flowering .whatever....I still remember what Atti, my worker, said about Red Snapper...to me one of the all time best flowers."Shame its so great of a flower, but the plant looks like it has AIDS" So we started from there.

About the time we were starting out there was a crazy Marine biologist in Tahiti struggling to get together a group of international growers, collectors .and hobbyists., I knew that on my own it would take me too long to get a real business going in HIBISCUS as at that time the craze was just starting. Thanks to Dick Johnson's, the not so crazy untiring efforts and the ability to pull together the big guns in Oz, Daemon, Charles Black, Luc Vanorbeeck, Barry Schlueter and Curt Sinclair in the USA, I was able to bring together my farming experience with Hibiscus expertise all over the world..

We with like 50 cv's from all over the world started to breed and cull..looking for a bullet proof bush, cv that would really set many flowers in a day,, and last a bit longer as well, we had sincere input and help from Dick Johnson, Allan Little ,Richard Mansbridge as well as Mervyn Weis. I mean help.....like plant grass green sided up..but mostly with seeds, cuttings and plants. Dick was always there to openly assist...just like he is today. And Wayne Hall with his experiences in planting in the of Arizona. Bob Rivers-Smith of New Zealand and of course Jim Purdie ..from oz..

On our farm @ 350m alt (1150 ft elevation) it is only flat if you look down...so my compadre Guillermo Oliver LLináz showed me how coffee farmers use the jungle with roads and terraces..
We cleared 8 acres with bulldozer and set terraces 10m wide x the mountain contour every 16m of elevation. .The first planting was a thrill,. as we were installing drip. I never go anywhere without my drip irrigation as after 12 years planting in the desert as mechanized as possible and being able to fumigate, feed and irrigate 75 acres at a pop I knew there would be no better insurance than drip irrigation. Mind you at our farm, it rains 2000mm annually but its not there when you need it, so drip is always the secure answer..

We as well determined that to keep erosion down as well as to provide a controlled planting area on a 45 degree slope ,we had to do something, a Tropical plantation on a rainy day means falling down 10+ times..so we planted tyres side by side ..filling in the inner parts with stone and tosca with prepared mix in the planting area. of the tyre. Works fantastically. My workers called it the Caribe Hilton referring to the ease of going in and out of the planting area for the mother plants.
Another concept we learned was to take advantage of the jungle for shade...as Hibiscus are not indoor plants..."God tends to take better care of plants than people do "...we say… When we plant in the tyres, I maintain cv's as Mother plants that are very bushy, heavy setters and top flowers as well..the better and more requested the plant cv the more we have planted out. As we multiply by marcotte..producing a flowering large bush in 120 days off the mother plant. is not un-reasonable .
Today we see so many home owners looking for instant gratification. Meaning larger plants, so that is our present direction.

On our farm, the potting mix we use can become expensive and every individual habitat can comment on what is best for them..We use a mix of coarse sand and stable bottoms for a low cost very organic excellent mix..both grow wise and cost wise..We are now experimenting with using what we call Polvillo..the fines up to 3-4 mm of ground stone from the nearby quarry. As we plant Adeniums and Plumeria as well ,drainage is of the essence. I do like the Polvillo. as depending on the product we are planting, we vary the mix percentages. In hibiscus we use 2 parts Polvillo or River sand (Coarse) to one part stable bottom and top dress monthly with stable bottoms on all mother plants as well as marketing plants.

Feed ...Hibiscus are extremely heavy feeders in the Tropics...so top dressing with the stable bottoms serves three-fold purpose...excellent organic food, serves as a semi ground clothe and holds moisture in due to the organic make up and is very inexpensive..Here the PASO FINO stables must clean out the stable every 10-14 days to keep their expensive horse healthy. So we usually get a truck load free. We do drip Urea as well as 20-20-20 and Potassium sulfate, MgSO4(Epsom Salts} is sprayed for flowering set..

La Plaga or insect control.
When in the vegetable business I learned that a maintenance spray is much better than a knockdown spray...so we spray every 2 weeks and apply Imadficloprid when the ants show up every 4 months..

One area I always have a constant problem with is Erinose mites..we control them with various chemicals ,but there is no keeping them out. I find that Jim Purdie's recommendation to remove all damaged leaves and then spray twice seems to give the best control...With the use of Imasdicloprid, there is no longer the worry about Mealybug, White fly, Aphids and other sucking insects.
For pathologicals we use Actinovate as mycrorrhiza and Copper oxide for leaf problems in rainy season. Sulfur WP is always an excellent choice as it is not only an insecticide, but also a fungicide.

Breeding./Our breeding season is Dec 10-May 10.In this time frame we do about 4000 crosses with possibly 60% taking. As you all know, some mother plants throw many seeds..and some 1-2.and many are just not good pod bearers. I well know that from habitat to habitat this changes.
I am enthralled with reds..to me the most difficult to look for in a cross. After all with Dragon's Breath as the high bar...it is difficult..3 years ago we only did reds...out of 2000 + crosses planted out we kept 3-4 only. those being front N' Center, Big Red Mama and Red Zarches. In breeding I look and hope for white center or solid center...If it's going to be a red center,,, let's have the large blood red eye of Herm Geller. That I enjoy.
All in all...in 12 yrs of growing hibiscus commercially as well as 30 in breeding..I realize how little I really know about the plant world.
Esteban McGrath
Loresco Tropical
San Juan,Puerto Rico

This photo shows the slope that Esteban has in his garden and the drip lines which supplies the water and all his feeding and insecti-cide or what ever he wants to give his plants and also he uses tyres to hold the garden from washing down the slope.

Blueberry Hill & 6 mother plants with Georgia's Pearl in the top right of photo

Tsunami

Tsunami

Satita

Cremalina

Terciopelo Sport

Taino Cobre

Crossfire

Rueda D'oro

Magia Blanca & Erin Rachael

Batida D'Uva [Smokey Mtn. X Marilyn Quayle]

Dreamscape

Nightmare

Satita and Crossfire [In the background you can see the sloping country side]

Gold Rain

Big Red Mama

Rainbow Shower in flower, this plant is planted along the rim of the property

THE BIRTH OF A BLOOM

BY JIM PURDIE

This is a story of the steps followed in hybridising a new hibiscus bloom.
There is nothing which will give you as much delight, as collecting your own seed which results from your hybridising, plant them, see them burst through the soil, and you follow their growth and await their first flower. If you are lucky enough to have a prize winning bloom at the end of the event, then you have a great feeling of accomplishment.

At the start, you have to think about what you would like in a new plant. You have to pick two parents that are good bloomers, nice branching bush, not flopping all over the ground and vigorous growth.
You look for the colour of the flowers which you would like to pass on, good shaped flowers, not one which is often crippled, and does not present itself well, and whether you want singles, doubles or miniatures.

It is best to learn from experience, which flowers will be good mothers or pod parent as some blooms are not fertile. Trial and error will soon show which ones work the best.

Leave the mother on the bush and take the bloom which is going to be your father off the bush and take it to the bush containing your mother bloom. Then rub the yellow pollen which is on the staminal column of the father on to the 5 stigma pads which are at the top of the staminal column of the mother. The stigma pads should be sticky to be receptive to the pollen, and the pollen sacs should be open for the pollen to stick to the pads.

If your attempt at hybridising is successful, the flower petals will fall off after a day or two, and the calyx which contains the ovary will start to swell.

When you pollinate a bloom, always tie a tag on the stem of the flower, and write on it the date of hybridising, the pod parents, with the mother's name first and the father's name second. The tag is important as a record later on and also helps to identify which bloom has been pollinated, so that you do not pull it off when collecting dead flowers from the bush. If you are not careful, you could prune it off in a couple months time when you are pruning your bushes.

When the flower falls off, tie a piece of nylon stocking over the swollen calyx too prevent loss of the seeds in a couple of months time when the calyx bursts open.

When the calyx does open, you can find anything from 2 to 32 seeds inside depending how well the pollination worked.

Plant the seeds in some seed raising mixture, after nicking the top of the seeds with a razor blade, and exposing the white layer inside the seed. The seed is in the shape of a skull and you hold the pointed end with your finger nail and nick the rounded part of the seed to expose the white layer, being sure that you do not nick too much off as it will cut into the leaves when they emerge, although if you do cut into the leaves they will still grow all right just that they will have bits out of the edge of the leaf.

We got 6 seeds out of the calyx in one of the blooms which we pollinated and we got 4 seedlings from these 6 seeds. After growing them for a couple of years we only kept one , as the others were not worth keeping., so they were destroyed. You have to be ruthless and destroy the plants which are not up to scratch.

I then grafted some of the parent plant on to the rootstock of Ruth Wilcox, and after about another year it started to bloom well and started to win prizes at monthly meetings. The bloom's name was Tim's Delight

Each seed from a pod will produce a different flower. No two will be alike.

Tim's Delight was chosen to be in the Hibiscus of the Year competition for 2003 and is named after our Grandson . It has taken the pink of Old Frankie and the deep red of Fanfare, and produced a flower which has pink showing in the colour of the red. It stands out on the bush when they are in flower.

We find they will flower sooner if you plant them in the ground rather than leave them in a pot.

I hope that you try hybridising and get a good bloom which you will be proud of and you can say "I bred that'.

HIBISCUS- INCOMPATABILITY BARRIERS

Written by G. J. Harvey [October 1983]

Many of thousands of years ago the original ancestors of our so called H. rosa– sinensis must have been useful or attractive to men. This accounts for the wide spread occurrence of species and forms from Africa to Hawaii which were found to be cross compatible. What we now have to work with is a huge number of hybrids, mostly highly polymorphic. It would be expected that such a collection of highly bred plants would present many incompatability problems to hybridizers and in fact such is the situation.

I am by no means certain where these incompatability barriers occur. If I did know I am not so sure that I would be so interested in attempting to breed them. A very difficult cross that may eventually produce a single pod with one or two seeds provides an interesting challenge and satisfaction. The situation could be compared with the collector of rare plants who discovers that they have been mass produced by tissue culture and hence rendered virtually valueless.

Nevertheless , whilst hibiscus hybridizing exists there will be conscientious attempts and no doubt success in overcoming some of the incompatability barriers. This should crease the potential to produce the improved seedling results as desired by the hybridizers.

Some hibiscus cultivars are very fertile and present few problems in the breeding of them. Most of these types have been exploited rather extensively and have little to offer.

The obvious object in crossing hibiscus is to produce something superior to what already exists. The best approach is to cross quality with quality. We must know what is desirable commercially and we should have a good knowledge of our working material, resource, gene pool or whatever term is required.

The ideal male parent should bloom prolifically and present adequate pollen at all times. The pollen still attached to the stamens can be kept in a dry place for 2 to 3 days until required.

A definite barrier to hybridizing many varieties is the short interval from bud opening to yellowing of juvenile seed capsule and dropping which may occur in a period of 2 or 3 days. It is very likely that inadequate time exists from normal pollination to fertilization of the ovules. We would need to know how long it takes the pollen grains to germinate on the stigma pads and then grow a lengthy distance [usually 4 inches or so] from the style to the ovary. If we can increase the available time period by [a] pollinating in cool weather, [b] pollinating one full day before bloom opening or [c] the use of chemicals to slow down the process and length the life of the ovary, then we may overcome this.

The female parts of many blooms are imperfect or missing, therefore the breeding of them is impossible. In many double blooms stigma pads will be missing, though dissection of the ovary may reveal the less obvious faults such as missing or imperfect ovules. In some cultivars pseudopods are usually formed in which the ovary grows and becomes a second bloom, often fully opening in a double form complete with stamens. The original bloom is a single, sometimes crested, which displays no abnormalities.

American Seed Pod information hints at the occurrence of polyploidy or a replication of chromosomes in some cultivars. It appears to me that a cultivar that can be self pollinated, but is not successful as a male or female parent with other cultivars normally used in the breeding program, must be a polyploidy suspect. Unless we are to regard polyploidy as being beneficial to our breeding programmes, there seems to be no need to commence on chromosome counts. We may at a later date identify some suspects which for some reason should be tested or more information sought.

The pollen from some cultivars apart from being scarce during the breeding season, may not usually reach a receptive stage.

Likewise the stigma pads of some cultivars may not become receptive. Personally I judge both the pollen and stigma pads on appearance before deciding or persevering with a potential cross. I have heard that the rubbing of the sticky substance from a compatible stigma on to the incompatible stigma may make it receptive. I suspect that the stigmatic surface quickly dries out in direct sunlight, which is why seed pod production near the protected base of the plant is usually more successful. Some breeders with time and patience to spare carefully tie down each pollinated bloom for protection from the sun, whilst others cover the staminal column with a small cylinder of aluminium foil. A higher percentage of fertilization seems to take place during humid, overcast days which suggests that the stigmatic surface has remained receptive for a longer period and/or the life of the bloom and ovary has been extended.

Sometimes pseudo pods will develop without fertilization. Embryo abortion often occurs at the 3rd or 4th week stage. Possibly the embryo does not acquire sufficient food reserves or the parents are of a different polyploidy constitution.

In conclusion it is assumed that infertility is mostly due to slow growing pollen tubes which fail to reach the ovules or does so when they are past the fertilization stage. John Richardson has suggested that applying Butyric Acid and Glycerine to the flower stem may prolong the life of the ovules so that fertilization chances are increased.

Snippet taken from Science Digest

Trees and plants defend their leaves against hungry insects by making just enough poison to give the pests sour stomachs. This finding by biologist Jack Schultz of Dartmouth College, also suggests that man made pesticides may interfere with the natural defense system.

The plant's poison is tannin, which has no known growth function but is believed to create gastric distress among insects by preventing digestion. Schultz has found that the amount and composition of tannin in sugar maples varies from leaf to leaf and from day to day.

When insects begin to dine on an unprotected leaf, their munching seems to trigger production of custom tailored doses of tannin, says Schultz, which they ingest. Then suffering from indigestion and lacking needed nutrition, the insects move on, in search of a less well defended leaf. But, while scurrying from meal to meal, the pests are exposed to treetop predators such as birds. In effect, the trees enlist the bird's aid.

Schultz suggests that the defensive chemistry is a product of evolutionary necessity. "I'ts hard to prove that trees and plants originally developed the tannin system in response to insect attack," he says, "but tannin does appear in early fossil records. Trees and Plants protected themselves long before we had chemical pesticides."

The trees' natural pest protection is activated only when needed, where as man sprays synthetic pesticides uniformly over an area, covering entire trees and plants and causing chemicals to settle in soil and water. Man's pesticides are designed to annihilate a whole insect population, but some tenacious bugs escape unscathed to produce later generations with a built in immunity to the chemicals. It is these survivors and their off-spring that make possible outbreaks of such magnitude as the gypsy moth plagues of the last few years, Schultz speculates. Synthetic pesticides do keep the insect population down, he adds, but the pests are still plentiful enough to do damage.

Other researchers are trying to develop synthetic tannin, but Schultz doesn't think it will work as well as the real thing. "Just let the trees and plants alone," he urges. "Variability is a more potent control than uniform spraying, and tannin doesn't introduce toxic substances into the environment. Even gypsy moths are not likely to kill more than ten percent of a tree stand, if the trees are left to their own devices."

PS Editor Jim Purdie—- I have not sprayed my plants for over 20 years and the natural predators like birds and the good insects keep the bad insect population at bay, although it took 12 months when I first started before the good insects etc. were plentiful enough to control the bad ones.

Tim's Delight which was bred by Ruth and myself from Old Frankie X Fanfare [6to8 ins. 16to20cm] 10/7/99 and was entered in the 2003 HOTY here in Australia. [See page 9]

CHAMPION WINNERS OF TPC 2010-2

Single Tahitian Sophistication with 44 votes the winner entered by Nina Bjelovucic

Tahitian Princess second place with 13 votes entered by Richard Johnson

Mini. Grand Slam X Tigerama third place with 8 votes entered by Richard Johnson

Computer Art, Critical Eye fourth place with 7 votes entered by Olga

Double Tah. Purple Queen X Unknown fifth place with 3 votes entered by Richard Johnson

TOP 5- 2009 SOTY WINNERS

2009 SOTY winner Tahitian Silver Rainbow
Entered by Richard Johnson

Second Place Tahitian Raspberry Star
Entered by Richard Johnson

Third Place Tahitian Classy Lady
Entered by Richard Johnson

Fourth Place Gray Goddess
Entered by Robert Carran

Fifth Place Tahitian Andree
Entered by Richard Johnson

These photos are the first five of the winners chosen there is another 5 winners [10 in total] which will be entered in the HOTY program to be grown by the trialling stations for 3 years after they receive them