

THE HSPR NEWSLETTER

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1998, No. 2

FROM YOUR BOARD

Although the Board has not met formally since last January, telephone discussions among Board members have identified two existing situations which should be discussed by the entire membership. Both involve changes in the HSPR Bylaws and will be discussed at our June meeting. The following amendments are offered for consideration:

(1). Addition of Family Member to the existing membership categories which are Regular, Student and Honorary in Article 3; The purpose of the addition is to provide the same rights and privileges to Family Member as Regular Member. Although the Board determines annual membership dues, a suggested schedule is: Family: \$ 20.00, Regular: \$ 15.00, Student: \$ 10.00, Honorary: no cost.

(2). Change in Article 7.1. Regular Meeting of the Society. As now stipulated, the four Regular Meetings each year are to be convened "on the second Saturday of designated months". A number of members have stated a preference for Sunday rather than Saturday meetings, citing too many Saturday conflicts. Please be prepared to discuss this matter at our next meeting.

For any questions or information regarding HSPR, feel free to contact your Board:

President	Bob Lankford	833-8821
Vice President	Bryan Brunner	899-1530 (Office)
Secretary/Treasurer	Martha Lankford	833-8821
Counselor	Emilia (Sherry) Ballester	827-3121
Counselor	Rafael Benitez	723-7769
Counselor	Judy Nelson	839-2040

THE PRESIDENT'S CORNER

Further Thought About Heliconia Cultivars.

In the last issue of the Newsletter I expressed several personal concerns about Heliconia cultivars, or CVs. Specifically, how or why is a particular plant in a variable species population selected for CV status? -- and my concern about the growing tendency to establish a wild-collected plant as a CV without the test of cultivation. Today's column is a continuation of concerns with CVs.

For those who collect Heliconias, you may have noted that there is now a superabundance of Heliconia CVs being offered by growers and vendors. Some rhizomes are identified first by species and then by CV name. Good!! I have a fair understanding of what I am buying. But all too often, I see long impressive lists of CV names with absolutely no indication as to what species they belong. I have absolutely no idea what H. cv "Pink Dimples" or H. cv "Whatever" really looks like. And I don't buy!! An even more perplexing situation is the application of the same CV name to supposedly different species of Heliconia. This happened to me recently when I bought an expensive rhizome of H. stricta cv "Peaches and Cream" from Ecuador. Now someone says it's really H. bihai cv "Peaches and Cream" from Guyana. No comment!! Finally, there is the distinct probability that different vendors are offering the same variety of cultivar but with different CV names. Now we are in a real problem!!

The point I hope to make in what may appear to be a somewhat picky diatribe is quite simple -- the status of Heliconia nomenclature has grown increasingly chaotic. Worse, I see no guidance coming from Heliconia Society International which I feel is the logical body to bring a degree of discipline and order to the present situation. In all fairness, however, early in HSI history, Fred Berry and others recognized the need to stabilize Heliconia nomenclature and produced excellent color plates of species and varieties and made them available to members. These plates subsequently evolved into the timely publication of "Heliconias: An Identification Guide" by Fred Berry and John Kress. This 1991 compendium of 200 species, subspecies, varieties and cultivars immediately became the "lamp in the darkness". But like all good things, it is now out of date -- due to the subsequent introduction of new forms, whether real or imagined, to the market place, all stimulated by the near explosive popularity of Heliconias in the last five years. Chaos is no fun! No one likes it !! The question is what to do about it !!

It may be easy to identify a problem but it is often difficult to identify a solution. This is my case. I do see some possibilities though. It is my recommendation to the HSI Board of Directors at their forthcoming meeting in Singapore to establish a working group to address what is both a serious and growing problem -- a problem which first must be recognized and then assessed. And I would recommend that deliberations not be restricted to Heliconia species but to include relevant groups of the entire order Zingiberales, particularly the gingers which are now growing in popularity. In terms of solutions, I see centralized registry, color illustrations and more detailed descriptions as minimum components.

Other plant societies have come to grips with similar situations and problem areas. HSI is invited to try to do as well.

Best wishes, Bob Lankford

ON SEED PROPAGATION OF HELICONIAS: PROS AND CONS

by: Bob Lankford

Unlike the relatively simple asexual propagation by rhizome extension and division of offshoots, sexual propagation of Heliconia plants results from a complex series of interactions involving flowers, pollinators, fertilization of the ovary and eventually, seed formation -- all occurring within a controlling framework varying environmental factors. Once a flower is successfully pollinated, usually by humming birds in the Neotropics and by bats in the south-

west Pacific -- Indonesian region, the flower sepals wither and the ovary enlarges to become a fruit which matures rather rapidly. When mature or "ripe", most *Heliconia* fruits are dark blue, moderately soft, and about the size of a raisin. A fruit may contain from one to three seeds, seldom more and occasionally none at all. Seeds are typically hard and may have species-specific shape and sculpture.

After *Heliconia* fruits mature, their future is uncertain. The fruit may dry and shrivel in the inflorescence and eventually fall to the ground. There the fruits may rot or be eaten by foragers, or their contained seed(s) may successfully germinate. Alternatively, the ripe fruits may be eaten by birds and later be excreted after passing through the digestive tract. Note: there is evidence in some plants (such as palms) that digestive tract chemistry results in the destruction of naturally occurring germination inhibitors which would otherwise prevent germination; this situation may apply to some species of *Heliconias* but it has not yet been demonstrated. Once excreted, usually at some distance from the parent plants, seeds again may rot on the ground or be devoured by rodents or other animals. Or the seed may germinate, sprout and a new colony of a *Heliconia* species may be established. In one respect, sexual reproduction and successful propagation of *Heliconias* in nature is a rather "chancy affair". It is certainly a less predictable and therefore a less efficient system than asexual propagation by rhizome division and offshoots.

From a botanical viewpoint, sexual reproduction and seeding offers several advantages leading to increased probability of survival of the species. One is to provide a pool of genetic variability which can respond to changes in environmental conditions and to ecological selection processes. For example, seedlings from the same parent may be genetically different and with the potential to respond differently to environmental change -- one may survive, the other may perish. A second aspect of seed propagation is to provide the mechanism(s) to extend a species geographic distribution (the spreading of seeds by wind, water, gravity, birds, animals, etc.). Wide distribution within environmental tolerances thereby enhances survival when environmental catastrophe occurs in some portion of the species range.

For the horticulturist, sexual reproduction has its "pros and cons". Fast and efficient production of seedlings could have definite advantages for commercial growers specializing in potted plantlets rather than rhizome sales. Depending on germination factors, a large number of plants can be produced with relatively little cost and minimal infrastructure. Obviously seed propagation is more efficient than rhizome division and grow-out. There are several disadvantages in seed propagation. One is the genetic variation expected in seedlings and the inability to predict or control their characteristics. It is precisely this aspect of sexual reproduction that has stirred recent interest and experimentation in asexual micropropagation (= meristemming), a highly technical and complex process which can yield large numbers of offspring which are genetically identical to the parent stock. In this regard, the Newsletter hopes to publish soon the results of Arnaldo Astacio's research on *Heliconia* meristemming.

At this stage, it seems that both sexual and asexual propagation of *Heliconias* offer attractive options for the aficionado and commercial grower alike, and should be pursued according to their merits and the satisfaction of each individual's goals and wishes.

HORTICULTURAL NOTES

Propagating Heliconias From Seeds.

The following suggested technique is a compilation of experience from various sources and is offered as a guide only. Please share any new information or techniques with the Newsletter.

- (1). Select mature blue fruits as soon as convenient -- the fresher the better because the viability of seeds from some species is notoriously short. If obtaining seed from other sources, request information regarding their age and treatment.
- (2). Clean the pulp from the seeds. Soaking the mature fruit in water for 2-3 days usually causes the pulp to ferment and eases the cleaning.
- (3). Soak the clean seeds in a 10 - 15% solution of Chlorox (cloro) for 30 - 45 minutes to kill fungus which otherwise may destroy the seed or reduce germination.
- (4). Keep the seeds moist, if possible, and in a cool environment until ready to sow. Seeds that float may not germinate.
- (5). Some growers suggest scoring or scratching the harder and larger seeds suggesting that this hastens germination processes.
- (6). Plant the seeds as soon as possible in a moist, well-drained potting medium such as ProMix Bx. The container, a suitable tray, pot or seeding cone should hold a minimum of 3 - 4 inches of medium.
- (7). Place container in a warm sun-lit location. Keep moist but not wet. Periodic drying of the medium may destroy the germinating plants.
- (8). When sprouts are about 6 inches tall, or if they are crowded in the container, you may wish to separate them and transplant them into a 6 inch pot for improved grow-out. Add weak doses of 20-20-20 fertilizer.
- (9). When the plantlets reach a size of 1½ feet, with a minimum of 3 - 4 leaves, they are ready for planting into the ground.

Comments:

- Seeds of natural hybrids are believed to be sterile; not conclusively demonstrated.
- Germination time of different species is highly variable -- from 2 weeks to as much as 2 years.
- Seeds which have been allowed to dry completely before and/or during planting may germinate more slowly, or not at all.

ANNOUNCEMENTS

Next Meeting of HSPR, 6 June 1998

The second meeting of the Society in 1998 will be convened at 10:00 AM, Saturday the 6th of June. The meeting venue will be at Allamanda Farms, Inc., the finca of Jannette and Rafael Crespo in Naranjito. A detailed set of instructions to arrive at the meeting location, whether coming from San Juan, Mayaguez or Ponce, is attached as a tear-out page to this Newsletter. Jannette says that the probably will have sufficient chairs for everyone but you may wish to carry a chair or two to be safe. She also says that coffee and light snacks will be available.

The invited speaker for our meeting is Dr. Duane Kolterman of the Department of Biology of the University of Puerto Rico at Mayaguez. His topic will be cultivated varieties, with emphasis on the botanical order Zingiberales and the situations pertaining to C/V nomenclature.

Following the meeting, there will be a tour of the finca and an explanation of its role in the tropical cut flower industry.

HSPR Membership Dues

Annual dues for 1998 were payable at the first meeting of the Society last March. The deadline for late payment is 60 days after the first meeting. In this case the last opportunity to pay dues will be at our next meeting in June 6. For those who have not yet paid their dues, please consider doing so either by mail or personally to our Secretary/Treasurer, Martha Lankford, P.O. Box 3162, Mayaguez, P. R. 00681. We sincerely value your support and hope for your continued participation in HSPR. It is unfortunate to add, however, that non-dues paying persons will be dropped from HSPR membership and their names removed from the Newsletter distribution list.

HSI International Conference

It is now nearly the last opportunity to plan to attend HSI's 10th Biennial Conference to be held in Singapore on 22 - 25 July, 1998 at the Allson Hotel. Organized by the world famous Jurong Birdpark, the Conference Theme is "Gingering Across South-East Asia". Two field tours are programmed, the Pre - Conference Tour on 18 -22 July to Bangkok and Pattaya in Thailand, and a Post - Conference Tour on 26 - 30 July to Malacca and Taman Negara in Malaysia. For registration information, see the last Newsletter for address and tele contacts.

Classified Section

ANNOUNCEMENTS - One entry per member per issue; without charge; on HSPR - related matters only; must be non - commercial. Maximum of 25 words or number sets.

ADVERTISEMENTS - A cost of \$ 5.00 per entry per issue. Maximum of 25 words or number sets. Check or money order made payable to HSPR must accompany order mailed to HSPR .

Heliconia Society of Puerto Rico

Reunión, 6 de junio de 1998, 10:00 AM

Allamanda Farms, Inc.

Naranjito, Puerto Rico

Jannette H. Crespo — 869-0846

Desde San Juan:

Tomar Autopista De Diego hacia Arecibo (Carr. # 22), salir después del segundo peaje, Carr. # 165 hacia Toa Alta (hacia el sur, NO hacia Dorado)

Desde Mayaguez:

Tomar Autopista De Diego hacia San Juan (Carr. # 22), salir en la intersección con la Carr. # 165 hacia Toa Alta (hacia el sur, NO hacia Dorado)

Virar en la Carr. # 2 a la derecha, hacia Arecibo (NO hacia Bayamón)

En la segunda luz virar a la izquierda (Carr. # 165) hacia Toa Alta [dealer Toyota Adriel a la derecha]

[O, si se prefiere viajar por Ponce, Aibonito y Barranquitas, seguir direcciones más adelante]

Tomar Ramal Carr. # 165 hacia Corozal (no se entra a Toa Alta; Banco Popular en la intersección)

Seguir la Carr. # 165 hasta llegar a la intersección con la Carr. # 164; virar a la izquierda en la dirección de Naranjito (Carr. # 164) (Fábrica de cemento a la izquierda)

Se continúa en la Carr. # 164 hasta la intersección con la Carr. # 152, donde se vira a la derecha hacia Barranquitas (NO hacia Naranjito)

Continuar en la Carr. # 152; se pasa un centro comercial a la derecha (con MacDonald's y Supermercado Amigo); se pasa la Ferretería Los Hermanos a la izquierda y las gasolineras Gulf y Esso a la derecha; la carretera continúa su ascenso hacia la izquierda — todavía Carr. # 152)

Pronto se observa un grupo de casas a la izquierda (Lady's Auto Parts, de colores amarillo/verde); pronto a la derecha está la entrada a la propiedad -- difícil de ver --viraje abrupto a la derecha. Tiene portón de metal anaranjado y letrero

No se debe pasar Cedro Arriba Electronics a la derecha (negocio *flea market*, amarillo, rosa y violeta), porque viene después de nuestra entrada.

El viaje desde San Juan debe tomar entre 60-75 minutos

Desde Ponce:

Tomar Autopista hacia San Juan (Carr. # 52); salir hacia Aibonito y Barranquitas. En Barranquitas, tomar la Carr. # 152 hacia Naranjito

Poco después de pasar Empire Gas a la izquierda, se llega al sector del Abanico y la intersección con la Carr. # 779; continuar en la Carr. # 152 hacia la izquierda (Gasolinera Texaco a la izquierda); luego se pasa tienda de pintura Decorall a la derecha, y una escuela, CentroPiezas Auto Parts, el negocio Georgie & Reini y Cedro Arriba Electronics (negocio *flea market*, amarillo, rosa y violeta), todos a la izquierda.

La segunda entrada a la izquierda, inmediatamente luego de pasar Cedro Arriba Electronics, es la nuestra; tiene portón de metal anaranjado y letrero (se ve la casa)

Carr. # 152, Km. 11.1, Barrio Cedro Arriba, Naranjito, Tel. 869-0846

Bienvenidos