

THE HSPR NEWSLETTER

Published by the Heliconia Society of Puerto Rico, Inc.
2001 No. 3

The next meeting of HSPR will be hosted by Arnaldo Astacio at 9:30 AM on **Sunday, September 9, 2001**. His home is located on Gardna 135, Esquina Parana 1564 near to the Condominium El Paraiso. (Look for Autopista exit 177 if you are approaching from Caguas.) A map is appended at the end of this newsletter. Please remember to bring chairs, refreshments, and plants you have for the raffle, sales, or exchange. Also, because a major purpose of HSPR is to increase the members' knowledge about heliconias and other Zingerberales feel free to bring any new plants or observations for the "Show and Tell".

This meeting should be interesting and informative for HSPR members because Raul Serrano, who recently completed his Masters degree under the direction of Bryan Brunner, will be presenting his research about propagating heliconias from rhizomes. Without a doubt this is a subject that has intrigued, challenged, and frustrated most of us (see below).

PRESIDENT'S CORNER

As with many HSPR members, I have often tried to "make some sense" out of propagating heliconias from rhizomes. As with most of us, I have found that heliconias vary greatly in their ease of propagation. Some species are incredibly easy to propagate while others are frustratingly difficult. A possible reason for this variability may be related to the amount of starch in the rhizome because starch is the primary energy resource needed to produce new shoots. It then seems reasonable that, other factors being equal, bigger rhizomes should have more starch and therefore be easier to propagate. However, my best examples of easy and difficult heliconias are two closely related species, *Heliconia rostrata* and *H. standleyi*, that contradict this presumed relationship between rhizome size and ease of propagation. I have found that *H. standleyi* is much more difficult to propagate even though its rhizomes are considerably bigger and much more "healthy" looking than those of *H. rostrata*.

One possible explanation for this puzzling situation is that the concentration of starch in the rhizomes differ between these species. Is it possible that the smaller rhizomes of *H. rostrata* contain more starch than *H. standleyi*? As a preliminary test of this possibility, I assessed the relative concentrations of starch in rhizomes by using iodine (iodine turns starch bluish-black). In the limited number of trials conducted, rhizomes of *H. rostrata* always had more starch than *H. standleyi*. I also tested rhizomes of *H. rostrata* X *H. standleyi* hybrids which Rafael Benitez found easy to propagate. This hybrid also contained high concentrations of starch. Thus, the ease of propagating these heliconias (and their hybrid) apparently follows the starch concentrations in their rhizomes. Assuming that this pattern holds for other heliconias, then at least some of the variability in propagating heliconias may be explained by the starch content of rhizomes.