



GRANDE



“When I first decided to collect bromeliads”, remarks Hazel Quilhot, “one thing that stood out was the fact that they grew on trees, and we have two huge live oak trees in our yard.

From our collection of bromeliads and epiphytic plants, we proceeded to select what would survive unusual climate changes. We do have cold below freezing for short periods of time, hot and dry times too, and, of course, the rainy season has to be taken into account.

“Looking over the available supply of bromeliads with ‘showy’ qualities. Because color was a factor we used *Billbergia* Theo L. Meade for the long, hanging inflorescence, *Aechmea fulgens* var. *discolor* for the beautiful cluster of red berries, and *Neo. marmorata* for the mottled foliage, which looks great

when the sun comes through. *Billbergia* Muriel Waterman is a must if you are planting a tree because the color is such a deep purple, and, if you have trouble blooming it, you won’t when it is mounted.

“Lower areas have *Neo. compacta*, orchids, rhipsalis, tillandsias; upper areas have staghorn ferns, anthuriums, and we now have an epiphytic cycad.

THE ART OF THE TREE

A prize winning collage on one of nature's most striking pieces of canvas



"1977 was a very cold year, temperatures got below 26 degrees for too long a time. Damage was very noticeable in our garden plantings, but the only damage to the tree plantings was leaves of *Monstera deliciosa*, which were burned on the edges.

"**S**prinkling the plants was quite a job, so we reworked the tree plants and at the same time installed a sprinkling system with two pulsating sprinkler heads raised about 3 feet

above the plants. Bromeliads like *Neo. cruenta* and other long leaf plants hid the sprinklers. Some new plants we added were *Quesnelia testudo*, *Aechmea bracteata*, *Neo. cruenta* 'Sun King', *Ae. Foster's Favorite*, *Ae. gamosepala*, and any extra pups that were available.

"To reach the highest area we used a 40 foot ladder . . . Ralph thought I looked too hard to find high spots . . . but I really didn't!"

Working precariously high above the ground atop a 40 foot ladder, Ralph and Hazel Quilhot manicure and add new plants to a majestic, sprawling live oak tree which is the piece de resistance of their landscape design

PHOTOGRAPHY BY JOHN C. RUTH, II

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<p>ON THE COVER: To introduce our special issue on Responsible Hybridizing, we see a numbered code tag being placed into the edge of a pollinated flower of <i>Neo</i>. 'Star of Brazil'. And, for the curious, what is the pollen parent, NR.89? None other than <i>Neo</i>. Takemura Grande.</p> <p>OPPOSITE PAGE: <i>Neo. cruenta</i> 'Sun King' sits regally in the middle of a grouping of half-grown seedlings, of which 'Sun King' was the seed parent. Pollen parents used were <i>Neo.s kautskyii</i>, Aztec, and Catherine Wilson; can you tell which is which? Hybridizer in both photos is GRANDE'S editor, Jim Elmore.</p> <p>Photos by John C. Ruth, II</p>	<p>Portfolio: 2 The Art Of The Tree, a collage on nature's most impressive canvas</p> <p>Hybridizing Special, Part 1 6 The Case For Responsible Hybridizing . . . A major policy piece by the Chairman of the Florida Council of Bromeliad Societies.</p> <p>Hybridizing Special, Part 2 13 The Phantom Of New Orleans</p> <p>Centerspread 16 Another chapter in your bromeliad photo dictionary</p> <p>Private Collection: 18 Cliff Siverd "Paw-Paw, what makes all those funny little lines?"</p>	<p>Judging School 23 "God Doesn't Win Many Blue Ribbons"</p> <p>Hybridizing Special, Part 3 What's In A Name?</p> <p>©1979 GRANDE is published quarterly, by the Florida Council of Bromeliad Societies. Subscriptions are \$10.00 per year within the U.S., \$12.50 elsewhere. NOTE THE CHANGE OF ADDRESS: Direct subscriptions and all business correspondence to P.O. Box 40867, St. Petersburg, Florida 33743. Editorial material and photos should come to 4807 5th St. West, Bradenton, Fla. 33507. Printed by Ellie's Printing, Sarasota, Fla.</p>	<p>Editor & Creative Director: James V. Elmore</p> <p>Managing Editor: Bob Puterbaugh</p> <p>Associate Editor: Daris Cathcart</p> <p>Treasurer: Ellen Jay Peyton</p> <p>Photo Lab Manager: Ralph Quilhot</p> <p>Photographers: Prentice Bond, Thomas Crocker, Bunny Hendrix, Herb Hill, Norman Pettigrew, Carol Johnson, Tracy Jones, John C. Ruth, II</p> <p>Display Advertising: Bud Martin</p> <p>Classified Advertising: Carol Johnson</p> <p>Circulation Manager: Murline Lydon</p> <p>Business Manager: Helen McKinnon Wright</p>
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PLANT IDENTIFICATION OF CENTERSPREAD PHOTOGRAPHS		
Plant Name	From the Collection of:	
1. <i>Aechmea maculata</i>	Dennis and Daris Cathcart	
2. <i>Neoregelia caroliniae</i> 'Fuschia'	Harry Luther	
3. <i>X Anamea</i> Scorpio	Dennis and Daris Cathcart	
4. <i>Guzmania musaica</i>	Norman Pettigrew	
5. <i>Quesnelia liboniana</i>	Carol Johnson	
6. <i>Guzmania lingulata</i> - var. <i>cardinalis</i> 'Variegata'	Cliff Siverd	
7. <i>Aechmea tessmannii</i>	Dennis and Daris Cathcart	
8. <i>Tillandsia xerographica</i> 'Variegata'	Mark Moffler	
9. <i>Aechmea nudicalulis</i> var. <i>aurorosea</i>	Carol Johnson	
10. <i>Neoregelia</i> Fosperior	Hazel and Ralph Quilhot	
11. <i>Tillandsia streptophylla</i>	Lloyd Wetzel	
12. <i>Aechmea ramosa</i>	Hazel and Ralph Quilhot	
13. <i>Dyckia remotiflora</i> var. <i>montevidensis</i>	Dennis and Daris Cathcart	
14. <i>Aechmea</i> Rather	Peggy Rowe	
15. <i>Neoregelia</i> Fairy Paint 'Audrey'	Charles Coolbaugh	
16. <i>Guzmania dissitifolia</i> .	Morris W. Dexter	
17. <i>Vriesea rodigasiana</i>	Peggy Rowe	
18. <i>Neoregelia</i> Red Blush	Herb Hill, Jr.	
19. <i>Tillandsia disticha</i>	Dennis and Daris Cathcart	
20. <i>Nidularium regelioides</i> var. <i>rosulatum</i>	Hazel and Ralph Quilhot	
21. <i>Fosterella schidosperma</i>	Dennis and Daris Cathcart	
22. <i>Neoregelia concentrica</i> 'Red Nails' (M. B. Foster)	Hazel and Ralph Quilhot	
23. <i>Aechmea distacantha</i> x <i>phanerophlebia</i>	Hazel and Ralph Quilhot	
24. <i>Vriesea psittacina</i>	Carol Johnson	
PLANT IDENTIFICATION OF BACK COVER PHOTOGRAPHS		
25. <i>Aechmea recurvata</i> 'Cardinalis'	Morris W. Dexter	
26. <i>Streptocalyx poeppigii</i>	Hazel and Ralph Quilhot	
27. <i>Orthophytum disjunctum</i>	Dennis and Daris Cathcart	
28. <i>Streptocalyx longifolius</i>	Dennis and Daris Cathcart	
29. <i>Billbergia leptopoda</i>	Norm Pettigrew	
30. <i>Araecoccus pectinatus</i>	Dennis and Daris Cathcart	
31. <i>Aechmea tillandsioides</i> var. <i>kienastii</i>	Dennis and Daris Cathcart	
32. <i>Neoregelia caroliniae</i> var. <i>tricolor</i> 'Perfecta' Freak	Morris W. Dexter	
33. <i>Aechmea pubescens</i>	Dennis and Daris Cathcart	
34. <i>Neoregelia</i> Pauciflora Yellow	Lloyd Wetzel	
35. <i>Aechmea kertesziae</i>	Peggy Rowe	
36. <i>Hechtia rosea</i>	Lloyd Wetzel	
Photographs by: James V. Elmore, Carol Johnson, Ralph Quilhot, Bob Puterbaugh, and Norman Pettigrew.		

THE CASE FOR RESPONSIBLE HYBRIDIZING

by Nat De Leon
Chairman
The
Florida Council
of Bromeliad
Societies

EDITOR'S NOTE: The popularity of bromeliads is increasing at an astounding rate. As a result, thoughtless, uncaring, and even unscrupulous hybridizers are on the verge of flooding the marketplace with new hybrids and seedling offspring of old crosses decked out in fancy new names, which obscure questionable parentage and mediocre appearance.

*In a dramatic step to help put teeth into the effort to curb these irresponsible practices, the Florida Council of Bromeliad Societies passed a resolution early this year that **HYBRIDS OF UNKNOWN PARENTAGE WILL NOT BE ELIGIBLE TO WIN MAJOR (SILVER) AWARDS** at any show sponsored by the Council.*

The editors and staff of GRANDE strongly support this measure. We further suggest to all show-sponsoring bodies that the adoption of this rule on a nationwide basis will place ALL hybridizers on notice that the buyer considers responsible hybridizing practices and registration to be of utmost importance.

As a member of the South Florida and Broward County Bromeliad Societies I am often called upon to describe the show table at our monthly meetings. This table consists of bromeliads, usually in flower, brought in for display or identification. For the last several years I have noticed an increasing number of unidentified hybrids appearing. Even when they are named, they all have one thing in common, they are of unknown parentage. When nearly 100 members at any one given meeting cannot shed any light as to their origin, it gives cause for great concern.

During the past year and a half I have had the time to travel around the state visiting with commercial and amateur growers and find that more people are hybridizing than ever before. This increased activity would be great for bromeliads as a whole, and would increase our knowledge on the subject, but unfortunately much of this hybridizing

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is done in a most irresponsible manner. The hybridizer of today, like many of the hybridizers of the past, still fails to keep records of his work. Since their numbers have now greatly increased, we can expect the mass confusion, already at an intolerable level, to also increase sharply.

The situation in my opinion has reached the critical stage. We have reached the point of no return. Unless the increase of irresponsible hybridizers and nurserymen is checked, we will not be able to cope with the mass confusion that will follow. By exposing the subject and airing it in public, I hope to show the responsible parties the errors of their ways in hope that we can restore some sanity in the bromeliad family.

As a hybridizer I am able to write with some experience and look at both sides of the coin. Having given the matter considerable thought, I have concluded that there are basically three main reasons that would explain the mass confusion in plant names as a result of the actions of the hybridizer.

The first group of hybridizers desire to be secretive about their work. They are usually commercial growers or have commercial leanings. Such people will generally grow their seedlings to maturity. Surely if the end result has great commercial possibilities, the hybridizer then has the first chance at remaking said hybrid in what ever quantity he so desires be-

fore releasing it. Yet I know of no hybridizer in this country, with the exception of Joe Carrone of New Orleans and myself on occasion, who has ever remade one of their hybrids. So why all the secrecy when the hybrid is released? Included here, and to be looked upon with the greatest contempt, is the hybridizer who officially names and registers a hybrid and purposely falsifies one of the parents. Couldn't happen? Well, I can prove two such instances, one of which

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continues to be perpetuated in subsequent literature.

The next group of hybridizers has either fouled up their marking systems somewhere between the point of pollination and the ripening of seeds or their labeling system somewhere along the line after germination. No, there are no deep dark secrets to hybridizing. Anyone can do it. All that is really needed is the time necessary to make pollen transfers, a working knowledge of the flowering habits of the plants in question gained by observation, and the know how and patience in growing the resulting seeds to maturity. Equally

important is the devising of foolproof marking and labeling systems so that you know what has been done every step of the way. One must devise several marking systems to cover the different inflorescence structures. The important thing is admitting that the problem exists and then setting out to solve it. I can say this through experience, having fouled up the markings of several early hybrids. I chose to disregard the seedlings rather than grow on unknown quantities. *Neoregelias* have to be the most difficult of bromeliad flowers to mark. I can clearly recall meeting Joe Carrone and having him show me his foolproof method of marking *Neoregelia* flow-

ers. Joe could pollinate every single flower knowing that when the seeds were ripe he would know exactly what pollen

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parents he used to produce the seed. Yes, it takes more time to mark individual pollinations. If one does any amount of hybridizing and trusts to memory alone, he is bound to make many mistakes which is just as bad

as having kept no records at all.

The third group of hybridizers makes no attempt to mark or record pollinations. One segment of this group are commercial growers who freely admit that all they are interested in is producing seeds that will produce plants to sell to the general public. They say that the general public could care less about names, let alone hybrid parentage. Such growers are guided only by dollar signs, are interested only in an immediate return for their labors and generally know little about hybridizing.

I know of one grower who boasts of having some 35,000 hybrid *Neoregelia* seedlings. Yet most of these seedlings are the result of self-pollinations of anything and everything that might be in flower at the time. A worker goes around each morning with a Dirty Brush shaking pollen. Most of the resulting seedlings are sold long before they mature to unknowing retailers or hobbyists. I have seen the results of these self-pollinations and only a very small percentage are worthy of cultivation.

An unknowing public will eventually wise up to such practices, but in the meantime the market becomes flooded with inferior plants. I would think that a nurseryman would be more interested in the long haul, for long range hybrid-

izing programs have already proven their profitability and do not affect the reputation. This segment never considers that they might produce the bromeliad to end all bromeliads and they would have no way of knowing what the parents were. As to the claim that the general public could care less, nurserymen forget that they were all once part of that general public and that yesterdays' general public are today's bromeliad society members.

The other segment of this group are hobbyists who decide to try their hand at hybridizing. They know little of the problems involved and do not think of the damage they can do by not keeping records.

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The major problems have already been explained. Hobbyists should realize some basic facts. One, that generally speaking the more complex a hybrid is the greater the variability when used as a parent in hybridizing. Additionally, that the most variability will be obtained from using two complex hybrids as parents and this number will be further increased according to the total number of seeds produced. The hybridizer therefore has the power to produce untold numbers of different hybrids. If no records are kept, he then contributes that much more confusion in hybrid names.

There are at present far more illegitimate hybrids than those of known parents. We can do little to

rectify the mistakes of the past. We must think of today and tomorrow. I think we must also be realistic enough to accept as parents of hybrids, unregistered names with no parentage that have through the passing of time become well known. Speaking for myself, no matter how appealing a hybrid might be for use in further hybridizing, I will not use it if it is not named or its name is not now commonly accepted. There is certainly enough material to keep one busy for a lifetime.

There are those who say "why bother naming hybrids." And that many hybrids are so inferior they are not deserving of names. To this I would agree up to a point. I have an *Aechmea* Red Flamingo. Because of my work at Parrot Jungle in Miami I have seen these

birds every day for more than twenty years and can say with some authority that this hybrid in no way resembles flamingoes in color, shape, or form. But what is wrong with simply listing the parentage of a hybrid? It certainly reveals more information and in many cases is more descriptive than most names used today. I like to think that all hybrids, good or bad, should contribute something to our sum total of knowledge. I keep thinking that if the parentage of all hybrids in cultivation today were known, then the hybridizer with the keen eye would be able to look over the field, study dominant and recessive traits and be able to make more predictable hybrids. Then bromeliad hybridizing would be raised to a greater level than the hit and miss level of today.

"The more complex a hybrid is, the greater the variability when used as a parent in hybridizing."

The subject of irresponsibility can not end here without leveling a few salvos at the bromeliad nurseryman. Their handy-work starts after the hybridizer is done and includes the foul up of species as well. I have the catalogs of most of the mailorder nurseries and find the lists riddled with mistakes and inconsistencies. No list that I have seen has a legend that explains their naming procedure. The nurseryman assumes that the buyer knows at least as much as they do when more often such is not the case. A catalog should help educate the public, but most tend to confuse the prospective buyer.

One catalog lists some 422 species and hybrids. Of these some 209 are illegitimate names. This same catalog has 52 misspelled species and well known hybrids, and is an absolute disgrace. One of the better catalogs lists some 103 hybrids properly, but fails to give hybrid status to 42 others. An unaware reader might assume that these are species when such is not the case. One catalog lists a *Vriesea corcovadensis*-(syn. *Vr. rubida*), and then further down the list *Vriesea rubida*-(syn. *Vr. corcovadensis*). Of course *Vr. corcovadensis* is the correct name.

Let's examine the nurseryman's situation more closely. The nurseryman blames most of his nomenclature problems on the taxonomist which is totally unfair. Today there is far more literature available to us

than ever before. Taxonomy has made great strides toward a better understanding of the family. The nurseryman fails to take advantage of such information and one does not have to have a botanical background to extract this information.

Every nursery that offers the plant lists a *Tillandsia flabellata* and a *Tillandsia flabellata* var. *rubra* when they are one and the same plant. Look at any botanical description of this plant and somewhere in the first two sentences you will read, "leaves red". Then in 1957, Mulford Foster described in the "Bromeliad Society Bulletin", *Till. flabellata* var. *viridifolia*, which takes care of the green form.

In 1955 Dr. Lyman Smith published his monumental, "Bromeliaceae of Brazil", and while this book is totally taxonomic, the layman can obtain much useful information from it. If we look at the index we will find all the known synonyms up to that time and the appropriate page number leading to the correct botanical names in question. A look through the index would show that *Neoregelia acanthocrater* is really *Neoregelia concentrica*; that *Nidularium pictum* is a synonym for *Nidularium fulgens* no matter what color the bracts are; and that *Vriesea rostrum-aquilae* is really *Vriesea incurvata*. And let's put the *Vriesea tessellata* problem to rest once and for all. *Vr. tessellata* may be a

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more descriptive name and may sell more plants but the correct name back in 1955 was shown to be *Vriesea gigantea*, a position Dr. Smith has not changed in his most recent monograph.

The so called *Vr. tessellata var. nova* is an unpublished variety of *Vr. gigantea* and all hybrids of *Vr. tessellata* are in fact hybrids of *Vr. gigantea*.

For a long time I have been hoping to find the true *Vriesea psittacina* for it represented an important parent in some of the early European *Vriesea* hybrids. Everytime I see the name listed I order a plant hoping and each time it flowers out to be *Vriesea carinata*. If we look in this same book we would find excellent line drawings of both species and if we further looked into the matter we would find that the only similarity between the two species is that they both have green leaves, but so do most *Vrieseas*. When I see the double listing of both species and synonym I can not help wondering if these plants ever flower in the nurseries in question and if they do, whether nurserymen ever bother to check the inflorescence against the label. And when I see different prices for the same thing, it's too much.

The "Bromeliad Bulletin", of old and the more current "Bromeliad Journal",

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can be important sources of information. Most catalogs offer a *Neoregelia morrisoniana*. It is listed as though it were a species. Another catalog lists a *Neo. carolinae var. morrisoniana*. The fact is that *Neo. X morrisonniana* is a Mulford Foster hybrid described in the "Bromeliad Bulletin", in 1955. It is a hybrid of *Neo. carolinae*. This is but one example of many hybrids appearing in catalogs as species. The reverse is also true and it is not surprising to find such a listing as, *Guzmania X Meyer's Favorite*. This plant is actually a red leaf form of *Guzmania lingulata var. minor*. I should know, since I sent the De Meyer Nursery their first plants and seed a number of years ago. If a nurseryman is going to put out a catalog it should be correct. And the only way this can be done is to become as familiar as possible with the naming process.

Another big problem is the offering of different plants under the same name. Several years ago I decided it was time to become acquainted with many of the hybrids that were well known in California but little known in Florida. I bought and traded plants from various sources. As a result, I now own three different *Aechmea* Black Prince, two different *Ae.*

Pearl Buttons, two so called *Neoregelia pauciflora var. rubra* and three *Neo. Vulcan*, just to mention a few. But the piece' de resistance has to be my receiving two plants under different names from the same grower that were the same in foliage and growth habit. Both flowered at the exact same time with identical inflorescences. California nurserymen would do the grower a great service if they would occasionally get

"Nurserymen owe it to their customers to do everything possible to insure proper identification."

together and agree on a common name for a particular plant. It is not intended to single out California nurserymen, but since they comprise the majority of mail-order nurseries, they become the most obvious culprits. The situation is equally bad in Florida or any other area where bromeliads are popular. I may be wrong, but I happen to feel that nurserymen, no matter what kind of plants they sell, owe it to their customers to do everything possible to insure proper identification and that names be as current as possible. Each time a plant is sold the

"The buying public can help the cause by flexing its monetary muscle and buying only from nurseries living by the rules."

nurseryman puts his reputation on the line and believe me, there are many reputations going down hill fast.

Still another problem is the offering of the same plant under different hybrid names. It is often the biggest game in town and is called, "name that hybrid". This game is played when a nurseryman finds a plant that is new or unknown to him and decides

to name it even though he had nothing to do with its creation. They spend little time seeking its origin, nor do they try to find out if the plant already has a name. Thus, Mulford Foster's hybrid *Neoregelia Fosperior*, also goes under the name of *Neo. Blackie* and *Neo. Black Knight*. The last name however should not be confused with a listing for *Neo. Black Knight* (Oeser). The name you buy the plant under will depend on from whom and from what part of the country

you make your purchase.

Another classic example that I cannot pass up is the listings for *Aechmea orlandiana*. 'Pickininy', *Ae. orlandiana*. 'Black Magic' and *Ae. orlandiana* 'Nigra', all of which represent the same plant. The joker here is that while they all might look like *Ae. orlandiana* varieties, they are actually the result of Bill Frase's self-pollinations of *Aechmea Bert*. While Bill never published the name, he did call it 'Pickininy'. So a more correct listing would be *Ae Bert cv. 'Pickininy'*. As long as I have used this as an example I would like to pro-

pose to the International Bromeliad Society the adoption of a rule that would require the use of an F2 designation after the name of a hybrid that was a result of self-pollination, i.e., *Ae. Bert* (F2) cv. 'Pickininy'. This would differentiate self-pollinations from cross-pollinations where variations are produced. It would certainly help keep the record straight.

