### BRASSOCATTLEYAS . . . FROM A HYBRIDIZER'S VIEWPOINT

by Frank Fordyce

A mong the most "taken for granted" intergeneric hybrids of the Cattleya alliance are the popular Brassocattleyas and Brassolaeliocattleyas. Hybridizers have found wide acceptance among the hobbyists for these dynamic, bold-charactered flowers - for they bear a banner of distinction that none of the other Cattleya alliance can boast. We refer to the intriguing fimbriated labella inherited from Brassavola digbyana.

In reviewing the historical background of the Brassocattleya (Brassavola x Cattleya) we note the first major interest appears in Sander's List of Orchid Hybrids during the mid 1920 to 1930 era. Among the first popular clones to be used in any major breeding attempts were the combinations of Digbyano-mossiae (the first Bc. hybrid, Veitch 1889), Digbyano-mendelii, Digbyano-schröderae, Digbyano-trianae and Digbyano-warneri. These would naturally be among the first because of the availability to early hybridizers of the species. Other popular parents have been Bc. British Queen, Bc. Cliftonii and Bc. Madam Charles Maron.

One of the most interesting aspects of Brassavola digbyana is the varying shades of light green, and to the hybridizer without previous knowledge at hand, it would seem to lend itself to the production of yellow progeny yet most early attempts in breeding involved a lavender parent with B. digbyana. The most obvious attribute of B. digbyana is the unusual, bold, fimbriated labellum and possibly this singular outstanding feature is what early hybridizers endeavored to pass along in their breeding programs.

Perhaps, the most outstanding attempt to breed yellow is found in Bc. Mrs. J. Leeman (B. digbyana x C. dowiana) and Bc. Heatonensis (B. digbyana x C. Hardyana). Both of these hybrids have a strong influence on the yellow "Brasso" hybrids of today, for although B. digbyana tends to breed a high percentage of lavenders, even when used in combination with yellows, C. dowiana appears to overcome the lavender genes in a fair percentage of Brassocattleya hybrids.

The combination of Brassavola digbyana with the Laelia genus in breeding began as early as 1898, when Charles Maron registered Bl. Digbyano-purpurata, a cross of B. digbyana x L. purpurata. Veitch and Sons followed in 1899 with Bl. Mrs. M. Gratrix (B. digbyana x L. cinnabarina). A hybrid of B. digbyana x L. tenebrosa was introduced in 1902 and registered as Bl. Helen. These three appear to have been the most popular of their day and I would assume the early hybridizers found the straight Laelia influence inferior to that of the Cattleya or Laeliocattleya combination. It would seem logical that the narrow, often reflexed petals of the Laelia would increase the problem of petal reflex already inherent in Brassavola digbyana.

Brassolaeliocattleyas were naturally the next step along the hybridizers path and although intermingled with the new Brassocattleya introductions, the Blc. group began to appear in quantities in the late 1920's, 1930's and a number in the early 1940 era. Among the early Blc. hybrids we find Blc. Caligula (Bc. Cliftonii x Lc. Callistoglossa), Blc. Veitchii (Bc. Digbyano-mossiae x L. purpurata), and Blc. The Baroness (Bc. Mrs. J. Leeman x Lc. Ophir). As the vast majority of Orchid breeding emanated from Britain, the second World War brought a temporary halt to all hybridizing. During and immediately following the war, there began a tremendous upsurge in the world-wide popularity of all orchids, hence it is not surprising to find a large amount of both Bc. and Blc. hybrids listed in Sanders. Although "Brasso" hybrids do not appear to have increased in quantity as much as straight Cattleya or Laeliocattleya hybrids, one must remember that singularly, Brassavola digbyana is the species behind the entire Bl., Bc., Blc. complex, while there are many individual species used in the Cattleya or Laeliocattleya complex.

This now brings us to the "golden age" of Brassoinfluenced hybrids as we know them today. In order for any hybridizer to plot a course of future breeding he must review first the species involved, then the immediate primary hybrids, and progress through the more complex generations. Beyond this, he must compile a working knowledge of the dominant and recessive traits of any individual clones he believes worthy of use as parent stock. In addition, he must, through research and in personal observation, select new, previously untried clones that meet the qualifications he is attempting to achieve.

I have selected a group of Bc. and Blc. hybrids that, in this writer's opinion, have been and may continue to be, the backbone of the Brasso line of breeding.

Leeman x Lc. Ophir)

x Lc. Canberra)

Helton x Blc. Malvern)

Blc. RICHARD NIXON (Blc. Mal- Blc. XANTHETTE (Blc. Midenette x vern x C. Bow Bells)

Luminosa)

en Queen x Blc. Nugget) Blc. MODJESKA (Blc. Nugget x Blc. Greenheart)

Blc. HARLEQUIN (Lc. Mem. Albert Heinecke x Blc. Nugget)

C. Hardyana)

x Lc. Condrey)

nensis x Lc. Elinor)

Heatonensis) Blc. BUTTERCUP (Blc. Golden Myth Blc. HELEN MORITA (Blc. Gillian

Krugman x Blc. Midenette)

x Blc. Primate)

Blc. THE BARONESS (Bc. Mrs. J. Blc. JANE HELTON (Blc. Dorothy Drury-Lowe x Blc. Xanthea)

Blc. MALVERN (Blc. The Baroness Blc. JEWEL HIGDON (Blc. Jane Helton x Blc. Zanturano)

Blc. KONG-URAI GOLD (Blc. Zan- Blc. LINDA JEAN ADAMS (Blc. turano x Blc. Malvern)

Jane Helton x Lc. Lee Langford)

Blc. GLADYS LINES (Blc. Jane Blc. XANTHEA (Blc. The Baroness x Bc. Sofrano)

Blc. Xanthedo) Blc. NUGGET (Blc. Palmyre x Lc. Blc. DAFFORA (Blc. Xanthea x Blc.

Blc. ROBERT GIFFORD (Blc. Gold- Blc. ZANTURANO (Blc. Tucurano x Blc. Zante)

> Blc. FORTUNE (Lc. Mem. Albert Heinecke x Blc. Xanthette)

Blc. GREEN GIANT (Blc. Xanthette x C. leopoldii)

Bc. HEATONENSIS (B. digbyana x Blc. GOLDEN GALLEON (Blc. Xanthette x Blc. Camilla)

Blc. GREENHEART (Bc. Heatonensis Blc. CAMILLA (Blc. Zamilla x Blc. Capella)

Blc. ORANGE GLORY (Bc. Heato- Blc. CONSUL GREIG (Blc. Golden Crown x Lc. Thyone)

Blc. PRIMATE (Blc. Primrose x Bc. Blc. GOLDEN QUEEN (Blc. Golden Crown x C. Miguelito)

x Blc. Consul Greig)

Blc. PAINTED DESERT (Blc. Kathy Blc. LLEWELLYN (Bc. Minerva x Lc. Mrs. Medo)



Blc. PRIMATE, 'DAFFODIL'
(Blc. Primrose x Bc. Heatonensis alba)

Currently causing much favorable comment as the parent of *Blc*. Mamie Fouraker and *Blc*. Buttercup. It appears to lend its form to a fair percentage of its progeny while allowing the other parent to lend its color. Petals do not reflex and lip is excellent.



Blc. LINDA JEAN ADAMS (Blc. Jane Helton x Lc. Lee Langford)

A happy combination of two successful parents. Large in size, a clear, clean-cut, non-fading yellow that does not reflex its petals. Continued breeding along the "Brasso" line will enlarge and close the notch in the lip.

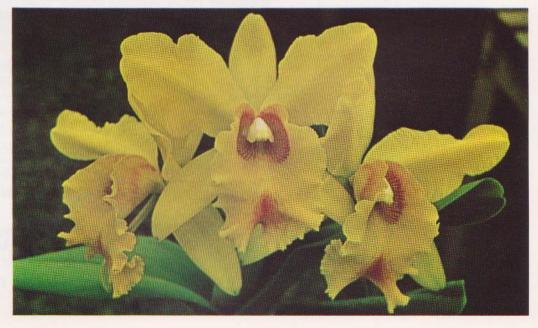


Blc. NORMAN'S BAY

#### Blc. GOLDEN GALLEON 'ALPHA NUGGET'

(Blc. Xanthette 'Chartreuse x Blc. Camilla 'Goldilocks' Blc. Golden Galleon represents one of the greatest advancements in the

breeding of modern day yellow Cattleyas. All plants of this grex are tetraploids, which renders them especially useful. An outstanding characteristic of practically all clones of Golden Galleon, is their special brilliance of coloring. When used, either with other tetraploids or diploids, many new hybrids of brilliant coloring, vigor and resistance to disease can be expected.



Lc. Golden Gleam)

Blc. MELLOW GLOW (Blc. Golden Blc. ILLIAD (Bc. Digbyano-trianae Myth x Lc. Prince Smilax)

Blc. MELLOW VISTA (Blc. Mellow Glow x C. Georgie Asder)

Sun x Blc. Golden Myth)

Wilcox x Lc. Gatton Glory) Blc. WAIKIKI SUNSET (Blc. Walter

Abe x Lc. Waianae Sunset) Bc. DEESSE (Bc. Ferrieres x C. Lamartine)

Bc. MT. HOOD (Bc. Deesse x C. Claris)

Bc. MT. ANDERSON (C. Bow Bells x Bc. Deesse)

Blc. NANETTE (Blc. Everest x C. Annette )

Blc. PINKIE (Blc. Nanette x C. Bow

Blc. NORMAN'S BAY (Bc. Hartland x Lc. Ishtar)

Bonanza x Blc. Norman's Bay) Blc. HERON'S GHYLL (Blc. Nor-

man's Bay x Lc. Ishtar) Blc. PAMELA FARRELL (Blc. Norman's Bay x Blc. Heron's Ghyll)

Prospector x Blc. Norman's Bay)

Blc. GOLDEN MYTH (Blc. Mithra x Blc. ERMINE (Blc. Aurea x C. Amabilis Alba)

x Lc. Orange Blossom)

Blc. PIMOLA (C. granulosa x Blc. Ojai)

Blc. PACIFIC GOLD (Lc. Pacific Blc. JOYANCE (Blc. Ojai x Lc. S. J. Bracey)

Blc. EPOCA de ORO (Blc. Barbara Blc. SHEERWATER PASSAGE (Lc. Princess Margaret x Blc. Norman's Bay)

Blc. VALERIE TONKIN (Blc. Norman's Bay x Lc. Seattle)

Blc. DAWN ANGELA (Blc. Heather Oueen x Lc. Ishtar)

Blc. EDWIN CHONG (Blc. Dawn Angela x Lc. Princess Margaret)

Bc. PRINCESS PATRICIA (Bc. Cliftonii x C. Enid)

Blc. WENDELL HOSHINO (Blc. Carinus x Lc. St. Gothard)

Bc. HARTLAND (Bc. Hannibal x C. Blc. WINSTON HOSHINO (Lc. S. J. Bracey x Blc. Wendell Hoshino) Blc. CYNDE FUJINO (Lc. Mysedo

x Blc. Wendell Hoshino) Blc. MEM. CRISPIN ROSALES (Lc. Blc. MOLFLORA (Bc. Florence x Lc. Molly Tyler)

Blc. WAKE ISLAND (Blc. Agnes McWilliams x C. Reseda)

Blc. MARJORIE FREY (C. Rembrandt x Blc. Wake Island)

Blc. LA VERNE NISHIGUCHI (C. Blc. VICTORIA 'COERULEA' (Blc. Antoinette x C. Portia 'Coerulea')

Undoubtedly, there are scores of other hybrids that should possibly appear on this list; this is but one hybridizer's viewpoint. Obviously, each individual has his own favorites based upon his own study. I have not attempted to list the individual clones used by hybridizers from a specific cross, although in several instances, only a single clone of an entire cross has been used successfully in hybridizing. It is impossible to cover the overwhelming complexities of every single hybrid listed, but I will emphasize a few points that are of personal interest.

Obviously, we should consider selected clones of the species itself as valid subjects. The majority of these have within their makeup gene packages that tend to breed into their progeny a lavender coloration. This is highly desirable in the breeding of purple crosses, but a great disadvantage in the breeding of true white or yellow hybrids. There are a few select clones that are "tried and true" albino forms, which when used with other known parent stock give rise to a predicted color range.

It must also be remembered that when breeding Cattleyas, the lip color is normally inherited separately from the petal and sepal color.

As in all hybridization, the possibility of peloria occurring is an ever present factor, and one that hybridizers eagerly search for. Peloria is an abnormality . . . one might call it "consistent in its inconsistency" such as splashed petals . . . occurring in specific clones regularly each time they bloom. As outlined in 'THE ORCHIDS,' edited by Carl Withner, "A striking peloric form is the unique Brassavola digbyana var. fimbripetala. In this plant the petals are fringed, as in the labellum . . . though not to such a striking degree."

Upon close study you will find the largest portion of our list of Bc., Blc. hybrids are in shades of yellow or allied color ranges. We find hybridizers leaning heavily to the "Brassos" for several reasons: 1. The progeny may be scented; 2. Hybrids may produce flamboyantly beautiful lips; 3. Overall flower size is large; 4. Plant strength is increased; 5. It is the opinion of many hybridizers that through the inclusion of the "Brasso" influence, deformities that so often are found in Laeliocattleya breeding may be substantially reduced or even eliminated.

When contemplating the use of any parent stock, we must weigh the negative side as well as the positive. On the "red pencil" side of the ledger we find the following bad features that must be considered: 1. Petals often reflex; 2. Quantity of blooms per stem is often reduced; 3. Progeny grow so strongly with such great distance between bulbs that they become a space problem much more rapidly than others of the Cattleya alliance; 4. There is an everpresent chance that packages of lavender color genes may be passed on to progeny you wish to keep free from color; 5. Unless careful selection is made among the purple "Brasso" hybrids, there is a chance of the progeny blooming in a light shade of lavender-pink, instead of the intended vibrant purple shades.

Certain hybrids are more successful in a breeding program than others, and it appears that among the yellow shades specific clones of Bc. Mrs. J. Leeman, Bc. Heatonensis, Blc. The Baroness, Blc. Nugget, Blc. Consul Greig, Blc. Green-Heart, Blc. Jane Helton, Blc. Malvern, Blc. Zanturano and Blc. Golden Myth have established themselves as respected stud plants. Among those that show promise for the future breeders are selected clones of Blc. Malvern, Blc. Richard Nixon, Blc. Primate, Blc. Painted Desert, Blc. Mellow Glow, Blc. Linda Jean Adams, Blc. Xanthette, Blc. Fortune, Blc. Golden Galleon, Blc. Joyance and Blc. Waikiki Sunset.

Blc. Nanette is a hybrid that keeps appearing time after time and has produced wide-spread feelings of delight to depths of sadness when its progeny began to bloom. Upon checking the parentage, we find Blc. Nanette to be Blc. Everest x C. Annette. Blc. Everest is Bc. Mrs. J. Leeman x Lc. Canhamiana. Lc. Canhamiana is bred from a semi-alba L. purpurata. On the side of C. Annette we find C. quadricolor x C. warscewiczii 'M. Beyrodt,' another semi-alba. Therefore, when apparently albino forms of Blc. Nanette are used with whites such as C. Bow Bells, a substantial group of the progeny produced are light pinkish-lavender. If that is what is desired, as in Blc. Pinkie (Blc. Nanette x C. Bow Bells), all is well. However, many an unsuspecting hybridizer has been sorely disappointed when fully expecting true semi-albas, finds a bench full of wishy-washy lavenders.

The hybrid Bc. Deesse (Bc. Ferrieres x C. Lamartine) shows a great amount of promise as a parent even with its involved parentage. Bc. Ferrieres (B. digbyana x C. Dionysius) could be either purple or semi-alba, for C. Dionysius is (C. Fabia x C. warscewiczii). There are purple, yellow and semi-alba forms of C. Fabia and white, semi-alba and purple forms of C. warscewiczii. The other Bc. Deesse parent is C. Lamartine (C. Lord Rothschild alba x C. trianae var. alba). To further confuse the issue, C. Lord Rothschild alba is C. dowiana x C. gaskelliana. Because of the involved parentage, it is important to trace the exact clones used from the hybrid's inception and finally choose the finest, clearest white form available for further use. The individual parent clone that appears to produce good results is Bc. Deesse 'Rainier,' producing such outstanding hybrids as Bc. Mt. Hood (Bc. Deesse x C. Claris) and Bc. Mt. Anderson (C. Bow Bells x Bc. Deesse) among others.

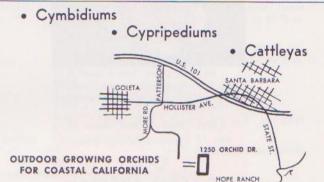
Progressing to the purple section of our Brasso family, we find hybrids such as *Bc*. Cliftonii, *Blc*. Dawn Angela, *Bc*. Hartland, *Blc*. Caligula and *Blc*. Veitchii as the backbone of the early purple "Brasso" hybrids.

More recently we find Bc. Princess Patricia, Blc. Norman's Bay, Blc. Heron's Ghyll, Blc. Mem. Crispin Rosales, Blc. Wendell Hoshino, Blc. Cynde Fujino and Blc. Marjorie Frey as the most popular modern breeders. I personally believe Blc. Molflora (Bc. Florence x Lc. Molly Tyler) will be among the new "greats," along with an increased interest in Blc. Marjorie Frey (Lc. Rembrandt x Blc. Wake Island).

Another new hybrid, *Blc.* Sheerwater passage (*Lc.* Princess Margaret x *Blc.* Norman's Bay) has everything it takes to become one of the fine new Brasso parents also.

Blue hybrids are currently a challenge to the hybridizer and it is my feeling that the "breeders of the blues" should seriously consider *Blc.* Victoria 'Coerulea' (*Blc.* Antoinette x *C.* Portia 'Coerulea'). This is a beautifully-formed blue "Brasso" with a darker blue "Brasso" lip.

The surface has hardly been scratched, but possibly you may have been stimulated into your own research program involving our delightful "Brassos." This is but one hybridizer's opinion . . . there are many. It is a generalization of what has been done; the hybrids that have produced substantial results. Our next step is to select proven superior, individual clones from the crosses listed and hybridize them with a definite goal in mind, always searching for that elusive greatness, for we too are convinced THE BEST IS YET TO COME!



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