



South Coast Orchid Club of South Australia

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Written by Mr. B. Hansen Printed & Edited by Mrs. I. Nash

Our next meeting being held at the R.S.L. Hall, Morphett Vale on the 11th June. We will have for the main speaker Mr. Kel. Staples.

Kel has been successfully growing Orchids for a number of years now and will be discussing his methods of growing various types of Orchids in a heated Glasshouse, topical now the cold weather has set in.

As Mr. Syd. Monkhouse has been to see the Winter Show at the N.S.W. Orchid Club I'm sure in his monthly cultural talk he will give a resume on plants tabled at the meeting.

Our Judge for the night will be Mr. Trevor Jacobs an accredited judge with the O.C. of S.A. Inc. Trevor has previously judged at our Club.

The North Western Tasmanian Orchid Soc. of Devonport, Tas. is holding the Tasmanian Orchid Conference from the 11th to the 13th Oct. it is being held in one of the best Devonport Motels whose name escapes me for now.

Ansetts are running a Special Excursion tour, the 3 days for \$109 inclusive.

New Member - Mrs. Shirley Monkhouse is now a member of the Club (Orchid Club I mean)

At the Winter Show Commercial Growers may Place their exhibits on a table or two displaying their companies name, the plants will still be eligible for competition in the open sections.

This Year there will be a section for the ladies and men if they wish, in the form of a Corsage section, Posie section and Floral Art, so ladies start practising.

The committee is looking into lighting to compliment our flowers at Monthly meetings but finding the Right Light (NO PUN INTENDED) at the Right Price is difficult but I am sure we will find something.

On discussion re prizes for aggregate points in Monthly competitions the top five points getters in both Open and Novice will receive a prize at the end of each year.

Next Months Bulletin will carry a full list of prizes to be won at our Winter Show. \$91.00 has been set aside for the prizes.

The following is the Monthly competition prizes as judged by Mr.Syd Monkhouse:-

OPEN SECTION

CYMBIDIUMS	KATYDID	Valley Orchids	3 pts.
"	BETHLEHEM 'EARLY TIMES'	R. Gowling	2 pts.
"	EARLYANA	R. Gowling	1 pt.
CATTLEYAS	B.C.LANGUEDOC		
"	'SINGAPORE WELCOME'	N. Packard	3 pts.
"	C.MARGARET DEGENHARDT	W. Harris	2 pts.
"	C.JUNE BRIDE 'GAYE'	W.Harris	1 pt.
PAPHIOPEDILUMS	F.C.PUDDLE F.C.C..R.H.S.	J. Hofner	3 pts.
"	ETHEL	W. Harris	2 pts.
"	SIMONIDE X BANCHORY	B. Hansen	1 pt.
AUST.NATIVES	BULBOPHYLLUM		
	macphersonii var.burgundy	W. Harris	3 pts.
SPECIES	CATT.bowringana	W. Harris	3 pts.
"	B.nodosa var.majus	W. Harris	2 pts.
"	CATASETUM fimbriatum	B. Hansen	1 pt.
MISC.	ASCOCENDA YIP SUM WAH		
	X(V.EISENHOWER X ACM.curvifolium)	Valley Orchids	3 pts.
"	DEN.MAUI BEAUTY 'GAYE'	W. Harris	2 pts.
"	" PAKARENA	W. Harris	1 pt.

NOVICE SECTION

ONCIDIUM SULTAMYRE			
X NONA		Mrs. M. Lang	3 pts.
" HARRY JENSEN			
X PHYLLIS WELLS		Mrs. M. Lang	2 pts.

POPULAR VOTE WINNER

ONCIDIUM HARRY JENSEN X PHYLLIS WELLS (Owner Mrs. M. Lang)

INDOOR PLANT

ADIANTUM (MAIDENHAIR FERN) Mrs. D. Graves 3 pts.

There was a fine and varied display of Orchids at this Meeting, which proved quite clearly that our Club is far from being just a Cymbidium society. This aspect is very encouraging, for it shows that there are other genera, such as ODONTOGLOSSUM grande, grown by Bernie Hansen and the two ONCIDIUMS by Mrs. M. Lang, which will really flourish when grown cold. The O. grande grows with Bernie's Cyms, and he takes it inside for protection when in bud.

The Oncidiums, which certainly 'stole the show' were grown to perfection in an unheated glasshouse.

BIFRENARIA harrisoniae will do well in similar conditions and some autumn-flowering CATTLEYAS - particularly the bi-foliates. Our new novice members will do well to realise that all the above genera are found growing in trees; they are epiphytes and they need an open potting medium to allow air to reach their roots.

If you have an unheated glasshouse, PAPHIOPEDILUM insigne and its variety, the larger harefield hall, will also flourish in a shady position.

Comments by Wesley Harris.

Further to the request at the last meeting for the donation of orchids to help the flood victims in Queensland, would members please bring along any donations they have to spare of any orchids except standard Cymbidiums to the June Meeting. These will be forwarded as soon as possible.

The following article about Miniature Cymbidiums was written by Mr. Paul Miller, a World renowned authority on Miniature Cymbidiums. As you read this article you will realize it was written some years ago but as we have now seen some of the results of the crosses mentioned you can see Mr. Miller's predictions were extremely accurate giving you some idea of this mans knowledge. As it is a long article I decided to print it in full rather than to make a serial of it, so therefore other articles have been put forward to the July bulletin, hope you agree with my decision (too late if you don't).

So I gratefully acknowledge Mr. Miller for the following article:-

MINIATURE CYMBIDIUMS

The Orchidacea is one of the largest and most diverse of all plant families, consisting of 500 - 800 genera and 20,000 to 30,000 species (Garay 1960, Schultes & Pease 1963).

The genus Cymbidium was founded by Olof Swartz, a Swedish Botanist, in the year 1788, about the time that George Washington presided over our Constitutional Convention.

In those days there were just as many curious and inquisitive people as there are today. Explorers, orchid hunters, botanists, missionaries, and globe trotters, etc. were combing the jungles of the world for rare plant specimens.

Many of them were commissioned by botanical museums and horticultural societies. Some were authors, others were illustrators of publications; and, when they discovered a new species, they either named it themselves or had it categorized and classified by botanists. This may account for the fact that this genus was much mixed up in the beginning.

John Lindley, a British botanist, in 1830 weeded out a lot of confusion by defining the known *Cymbidium* species and Orchid genera. About twenty years later, Reichenbach and Bentham reduced the genus still further by eliminating additional species which did not belong in this genus.

It remained for Mrs. Emma D. Menninger of Greeoaks to record synonyms and condense them in her November 1961 publication by enumerating many duplications registered by different explorers and botanists who had coined their own designations regardless of similarities in *Cymbidium* species which had previously been found and named by others.

Mrs. Menninger reduced the amount of actual species to about 64, which is less than half as many as there are recorded.

It is hoped in the interest of botanical science that she would someday write a monograph about *Cymbidium* species for acceptance by the Commission of Botanical Nomenclature of which she is a member because there exists a dire necessity for consolidation of synonyms and clarification of conflicting definitions.

To illustrate this: *Cymbidium Pendulum*, so named by Swartz, has been known in British Gardens for over a century as *ALOIFOLIUM*; but *Cym. ALOIFOLIUM*, so named by J.J. Smith, by King and Pantling, and Messrs. Loddiges has been identified by Rolfe as being *Cym. Simulans*.

What Swartz called *Pendulum* is Synonymous to;
CRASSIFOLIUM by Wallich
MANNII by Reichenbach
FINLAYSONIANUM var. *Pendulum* by Lindley
ATROPURPUREM by Rolfe.

To illustrate this further, what Hooker described as *LANCIFOLIUM* is called:
ASPIDISTRIFOLIUM by Fukyama
CUSPIDADUM by Blume
GIBSONII by Lyndley
JAPONICUM by Miguel and
NAGI - FOLIUM by Massamune

The specifications are all the same and there are many more like that.

By far the greater number of *Cymbidium* species are dispersed over the Indo-Malayan region, ascending to over 5,000 feet and even higher on the Khasia Hills and on the Himalayas of Nepal and Sikkim. Outlying species occur in tropical Australia, Japan, China and New Caledonia.

Orchid growing in China and Japan is over 2,000 years old. The first book about orchids was written by a Chinese scholar called Kin-sho more than 1,000 years ago.

The species described therein are limited to some varieties of the highly fragrant Gyo-kuchin. In Japan, the first orchid book was published in 1772 by Matsuoka. It dealt mostly with Cymbidiums called "Fu-ran", which means "Wind Orchid" in Japanese.

It is so written by the wise scholar:

"In Japan, Royal Peers perfumed their clothes with fragrant flowers which they grew. Some of the feudal lords of the Tokugawa dynasty were so much attached to them that they carried their 'Pet Pots' of flowers even during their travels. The orchids were hung from the ceiling of their traveling vehicles in which a person is carried. Even the 'Shogun', the highest officer and general of the government, loved and grew them with his wives and maidens."

We don't grow them together in this country because we have greenhouses for the orchids.

In Japan they also have Orchid shows in July with displays of Miniature Cymbidium plants and not a single one in bloom. They like the foliage of the plants and the pots as much as we like the flowers.

Among the first Cymbidium species to appear in botanical history were:

- C. EBURNEUM
- C. LOWIANUM
- C. GRANDIFLORUM and
- C. GIGANTEUM

from which the first known hybrids bloomed in 1889.

Later on came:

- C. ERYTHROSTYLUM
- C. INSIGNE and
- C. I'ANSONII

and the majority of our standard size Cymbidium hybrids of today, i.e. about 90%, originated from just these seven species because they have naturally larger sized flowers than the rest of them.

There are at least two remarkable characteristics about the species of Cymbidium. As far as as we know they are all diploids and the majority, i.e. about 90%, of them have small flowers and are, by nature, diminutive and of miniature prototype. The exceptions being the coriaceous or hard leaf types.

When the first species were seen in England's Botanical Gardens and private collections over a hundred years ago, no differentiation in classification was made between the standard size and what was subsequently referred to as dwarf Cymbidiums.

The denomination "Miniature" evolved out of later hybridizations.

The establishment of a third classification has been originated by the Cymbidium Society; and its general universal acceptance may someday become a reality.

This category would embrace Cymbidium hybrids, which, by virtue of their appearance and size of flower may fall about half way between standards and miniatures.

The "Polyploid" Miniatures which naturally grow stronger and the so-called "Second Generation" Miniatures, among others, may be judged in this newly established group designated as "NOVELTY CYMBIDIUMS".

A matter of statistical interest is the amount of awards which were given to Miniatures in relation to standard Cymbidiums by the Royal Horticultural Society the Cymbidium Society of America and THE ORCHID DIGEST CORP.

These figures really gain significance if you take into consideration that we only have two generations of Miniatures as compared to 7 or 8 generations of Standards, of which there are perhaps 1,000 times more plants in cultivation than Miniatures.

Equally remarkable is the recording of Miniature Cymbidium registrations with the Royal Horticultural Society. Of a total of about 206 hybrids todate, over 140 or over 70% of them were made in Southern California where we have over 50,000 hobbyists and orchid raisers.

Now that we have accumulated a little over 20 years of experience in Miniature hybridization, it would seem timely to map out a pattern to guide us in our future efforts along some systematic lines of breeding.

One of the goals we would like to achieve is to have Cymbidium flowers which are as vivid and intense in colors as we see in roses and other garden flowers. With more flamboyant colors the Cymbidiums may eventually replace many Cattleyas because of their longer lasting qualities.

Also, certain selective lines of breeding should ultimately give us disease-resistant plants.

Priority should be given to the development of warm blooming hybrids which will flower in such countries that have night temperatures. In such a program we would probably use:

Cym. suave from Australia
Cym. chloranthum from Malaysia
Cym. ensifolium from China and
Cym. suavissimum from the China-India border

All of those should be excellent, warm growing parents, which, because of their small size of foliage (suavissimum excepting), for that purpose.

Other warm growing species, such as:

Cym. canaliculatum
Cym. madidum
Cym. atropurpureum
Cym. simulans
Cym. finlaysonianum
Cym. pubescens and
Cym. bicolor

may appear less desirable, perhaps because of their larger size and, to some extent also because of their pendular spike habits. We will make up our minds in about two years or more whether they will be worthwhile after we flower what is now still seeding size progenies.

Another important consideration in future cymbidium propagation should be breeding fragrance into the hybrid. In order to accomplish that, we may look to Sino-Japanese species which impart fragrance in some cases, whether they are used either as seed - or as pollen - bearers. They are:

Cym. hoosai
Cym. ensifolium
Cym. kanran
Cym. virescens
Cym. niveo-marginatum and
gyokuchin.

Unfortunately these species also dominate in their "forward clasping" petal habit which characteristic is considered a detriment for award judging. Another, perhaps equally challenging aspect of Miniature hybridization in the future should be focussed on having Miniature Cymbidiums in flower over a more extended season than three to four months, perhaps even all year 'round. Pumilum hybrids in many cases show the tendency of producing spikes in succession for a period of many months starting late spring or early summer.

For commercial purposes many more hybrids should be oriented to flower before Christmas.

All during our breeding program we should bear in mind that it will take many more generations of hybridizing to achieve fulfillment of purpose. Therefore it is of utmost importance that we endeavor to obtain diploid progeny in every successive generation so that the evolution of future miniatures may be assured.

Most standard diploids may not have the substance and long lasting qualities of triploids or tetraploids, but they certainly have more vivid colors which are readily imparted onto their progeny.

A good hint to hybridizers is to make two pollinations, then embryo-culture one after 7 months and let the other ripen out. Also, we made it a practice of selfing the top flower on any spike used for breeding so that the tip of the spike would be prevented from de-hydrating.

The culture of Miniature cym. is essentially the same as of standard hybrids excepting perhaps for the fact our first generation miniatures are still practically next-of-kin to the species, which would imply that they should be provided with cultural and climatic environments more closely related to their habitat. This suggests that they are rather intolerant to sodium salinity and also that they are more sensitive to a high nitrogen diet than are hybrids which have been acclimatized and domesticated for several generations.

In many places of origin nature only provides a meager diet of little organic matter around the roots of species and other than that, just enough nitrogen as the falling raindrops can extract from the air. Beyond that, nature leaves the plant nutrition more or less to the tender care of photosynthesis.

Photosynthesis is the natural process of plants to produce fruit sugars in the chlorophyll containing leaf tissue cells under the approximate equation of:

1 part of water (H₂O)
1 part of carbon dioxide (CO₂) and
10 light energy units
at approx. 75 degrees of F.

Many times I have been asked the question: Will clonal multiplication by meristem culture effect our hybridizing program? Most certainly not. It is the creation of newer and better things which brings about obsolescence of the previous. Hybridizers will continue to extend our vast hybrid complex without interruption, admonished by the thought that someone has to make the plants from which to make newer and better meristems.

To habitual pollinators and the sons of habitual hybridizers there is no substitute for creativity. No self-respecting grower is ever satisfied. They are congenital optimists and they have spirits with insatiable appetites. Indeed, more hybrids will be made in the future than have been made in the past with the best yet to come. The field ahead is limitless....and the competitive strife for supremacy keeps reminding us the only creature which can lay down on the job and still make money - is a hen.

However, hybridizers should not be reckless either or else be admonished by Oscar Wilde's counsel: To appreciate everything in moderation - even one's virtues. Incidentally, this hybridizing topic reminds me of a classic and true episode in the life of Bernard Shaw.

A very beautiful English dancer, Isadora Duncan, once wrote to Bernard Shaw something like this: "I am acknowledged to be one of the most celebrated Beauties in this world; and you, Mr. Shaw, are considered the greatest mind of our time. As a scientific experiment we should create an offspring to combine your intellect and my beauty."

Bernard Shaw replied tersely: "Perhaps we should, but what if it has your Brains and my Beauty...."

There is a most appropriate analogy between this episode and our hybridizing work. Hereditary influences of cymbidium alliance are some of nature's phenomena which we have not as yet been able to fathom fully. But, as we progress, we will continue to embellish our knowledge with more interesting discoveries relative to the dominant and recessive breeding characteristics which are imparted by various species to their progeny.

As mentioned before, about 90% of our standard cymbidiums were derived through hybridizations from only about 7 of the larger flowering species out of about a total of 64 species in this genus. Likewise, only about 5 species of the dwarf type cymbidiums have been used as parents for approx. 90% of all miniatures recorded todate.....

THIS MONTHS FUN PUN Did you hear the story of the church organist who, as usual, was walking home through the cemetery? He paused when hearing a sweet humming tune and he recognised it as Beethoven's Ninth Symphony. The next evening he heard Beethoven's Eighth Symphony. He told the vicar of this unusual experience and they decided to meet the next evening at the cemetery near the tomb of the great composer. Now, believe it or not, they heard the sweet humming tune of Beethoven's Seventh Symphony. To this day, they are still wondering if it were Beethoven - de-composing.....