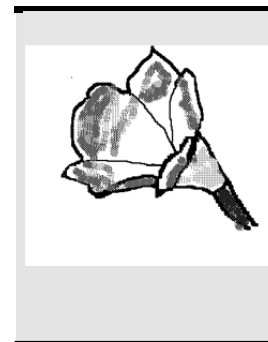


Clivia Club

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CLIVIA CLUB COMMITTEE MEMBERS

Chairman	Tino Ferero Tel (012) 546 6385 PO Box 36558, Menlo Park 0102 Fax (012) 348 8817	E-mail fpi.pta@mweb.co.za
Public Relations Secretary	Elda de Witt Tel (012) 991 0843 PO Box 74868, Lynnwood Ridge 0040 Fax (012) 991 1105	E-mail kedewitt@smartnet.co.za
Membership Administrator	Adri Haxton Tel (011) 802 7985 PO Box 977, Gallo Manor 2052	E-mail jameshax@global.co.za
Treasurer	Koos Geldenhuys Tel (012) 333 9548 PO Box 11277, Queenswood 0121	E-mail koosg@hoof2.agric.za
Editor	Meg Hart Tel (011) 646 9392 70 The Valley Road, Parktown, Jhb. 2193 Fax (012) 429 6688	E-mail hartmh@alpha.unisa.ac.za
Branch Chairmen		
Chairman (Northern)	Chris Vlok Tel H (012) 998 5942 PO Box 99583, Garsfontein 0042 Tel W (012) 429 6023	E-mail vlokac@alpha.unisa.ac.za
Chairman (KwaZulu/Natal)	Sean Chubb Tel (0325) 81978 Thurlow Farm, P.O. Box 74, Eston 3740	
Chairman (Cape Province)	John Winter Tel (021) 762 1166 NBG Kirstenbosch, Private Bag X7, Claremont 7735	E-mail winter@nbict.nbi.ac.za

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Views expressed in the newsletter are not necessarily those of the committee and the Clivia Club.

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EDITORIAL

September was a very busy month with the three weekends of Clivia Club activities culminating in the Second International Clivia Conference in Cape Town. It would be interesting to know just how many members did put in an appearance at one or other of the events. I certainly saw many of the same faces at all three shows and the conference. Although the flowering season is relatively short some of the most beautiful clivia gardens and collections in South Africa were visited as Club members opened their homes or nurseries to visitors. Being away while one's own Clivia are flowering is not too convenient as so much has to be done in September. Many a spouse or family member was left at home to cross-pollinate flowers to ensure a good crop of seeds.

Not much is actually said in this newsletter about the activities in September but all of them were truly memorable events. The flowers on the shows were superb. Many were cultivars of the 'Belgian hybrid'

variety but some of the best specimens were plants found and taken out of the wild. The KwaZulu/Natal Branch must be given credit for the way in which their show entries were exhibited amongst indigenous foliage with the containers cleverly camouflaged and concealed. The central display of the Kirstenbosch clivias (those not entered for competition) at the Cape show was arranged just as attractively. The proposed new judging guides were tested for the first time and much was learnt from their use. Congratulations to the organisers of the shows and to the judges for their hard work.

The tours and visits to private clivia collections, clivia growers and clivia populations in the wild were a truly memorable experience. Some lovely gardens and collections were seen from the Soutpansberg mountains in the north to Cape Town in the south. Each had something special to commend it, some collections were extremely large, others had only one or two special plants. The camaraderie on the trips was enjoyed and it was a pleasure to meet and converse with so many members and to get to know them better. Memories of the trips will remain for long afterwards.

The Second International Clivia Conference brought clivia enthusiasts together from all over the world. Delegates from eight countries attended. The setting at Kirstenbosch was superb, the facilities excellent, the organisation good and the various papers most stimulating. Different aspects of clivia cultivation were discussed and slides of various clivia cultivars were shown. We look forward to having the conference papers in print sometime next year. A six-hour video of the conference is also being edited.

We start the next Clivia Club year with a new Chairman for the Central Committee. The Northern Branch is now represented by members who do not also serve on the Central Committee. It is good to have enthusiastic new blood and we wish the Northern Branch success in its ventures.

Correspondence centres on colour, fragrance, variegation and clivia in Australia, New Zealand and California. John Winter reports on clivia found in the Transkei and Craig Honiball discusses results of his research. As space does not permit, there are many articles and letters received but not published in this newsletter. They will appear early next year. A big welcome to our new members. We hope to see you at branch meetings and hope you will contribute to the newsletter.

We come to the end of another Clivia Club year and we hope that clivia are cultivated more successfully far and wide as a result of the information which has been disseminated over the years. Not only have clivia thrived, but so have friendships and relationships amongst the members.

I hope that this newsletter which started off in October will reach you in time to wish you well over the festive season.

Meg Hart

..*..

CLIVIA CLUB AGM 5 SEPTEMBER 1998

Chairman's report

We have had a further year of growth in membership, the most important measure of whether the club is achieving its primary objective of furthering the position of Clivia. Membership numbers are reported with regularity in the Newsletter, and a point of concern is the large number of new members who sign on at shows but do not thereafter renew their membership - this will have to be addressed.

The Newsletter continues to improve. Its success is largely dependant on the quality and number of letters and articles sent in by members - our thanks to all contributors during the last year. 1998 also saw the first issue of the Clivia Review, which gave all members wherever they live an idea of how colourful are many of the plants which they previously could only try and visualise from the written word. It is intended that the Review, funds permitting, should grow to contain more photographs as well as selected articles. The newsletter will continue to be published quarterly.

The branch organisation has also continued to strengthen, to the benefit of members who are fortunate enough to live within those areas. The advantages of being able to share views and plants at meetings and shows are substantial, and should be an incentive to members elsewhere to organise to the best of their circumstances.

The development of the branches has also emphasised the limitations of the constitution which has served us well during the first four years, and a new constitution is in draft. The election of office bearers for 1998/9 will be the last under the current constitution. Constructive discussions are also being held on developing uniformity in judging.

This year's activities will be capped by the series of shows, tours and the second quadrennial conference, all taking place in September. It has the makings of an excellent programme, and our thanks in particular to the Cape Branch for organising the conference.

I regret that I am not available for re-election. I express my sincerest thanks to all members for their enthusiasm in the growth of the Club. Some of the greatest contributions have been from the committee members and we all owe them a debt of gratitude. My best wishes to you all, and in particular to the Club and Branch committee members who will be elected to guide us into the future.

James Abel

Financial report as at 5/9/1998

Financial report as at 5/9/1998	<u>1997</u>		<u>1998 est</u>	
*** <u>Inc:</u> Membership	14,496		16,000	
Seed & sundry sales	8,099		7,000	
Interest	2,812	25,407	1,500	24,500
<u>Exp:</u> Newsletter	7,964		10,000	
* Tel, post, stationery, print	5,063		10,750	
** Conference, meetings	765		3,750	
Bank charges	63		250	
Audit fees	684		750	
** Research sponsorship	0		3,000	
** Printer for computer	0	14,512	3,000	31,500
<u>Surplus/(shortfall):</u>		10,985		(7,000)
<u>Accumulated funds year-end:</u>		26,521		19,521

* New letterheads, other stationery & printing of the constitution.

** Extra ordinary expenditure

*** Subscriptions, not increased for 1998, will have to be raised for 1999.

Minutes of the AGM

The AGM was attended by 32 members. Nick Primich (founder), Pen Henry (Australia), Keith Hammett (New Zealand) and South African members were welcomed. The Chairman's and Treasurer's reports were presented, and there was discussion *inter alia* on the developing branch organisation, facilitation of administration and the drafting of the new constitution.

Election of committee: Tino Ferero of Pretoria was proposed as Chairman, seconded and elected unopposed. Serving committee members Koos Geldenhuys (treasurer), Meg Hart (editor), Adri Haxton (membership administrator) and Elda de Witt (public relations) were proposed, seconded and elected unanimously.

Tino Ferero thanked the meeting for the trust placed in him, thanked the committee for its past contributions to the Club and briefly discussed the necessity for and drafting of the new constitution.

James Abel.

..*..

FROM THE COMMITTEE

Chairman

A word of thanks to James Abel

James Abel did not stand for re-election as Chairman of the Clivia Club. We attempted to twist his arm, but he felt he had had a good innings and now wanted to hand over the reigns to others. He and Connie will remain active members of the Clivia Club, and especially of the Northern Branch, and have promised their wholehearted and loyal support.

Although not founder members, James and Connie have been members of the Clivia Club since 1993. In 1994 James took over the chairmanship of the Club from Nick Primich, the founder and first Chairman of the Club, and has put much time and effort into making the Club the success it has become. When I joined the Club, James was Chairman and I was very impressed by the very efficient manner in which he chaired meetings and ran the Club.

On behalf of all the members of the Club, I thank James for his many hours of effort and devotion. James still serves on the constitution subcommittee and his contribution will be of great value. We hope he will serve on other subcommittees from time to time and will advise on Club matters.

James and Connie, thanks for everything. Above all, thanks for still remaining ardent Clivia enthusiasts and members of the Clivia Club. Your contribution is greatly appreciated.

Tino Ferero.

Coopted members

The following members were co-opted to serve on various ad hoc committees of the Clivia Club: Louisa Liebenberg, Reneé Deschamps, Wessel Lötter, Ernie Hobbs and Frikkie Marais.

Tino Ferero.

Public Relations Secretary

Final comments on the draft constitution should reach the office of the Clivia Club no later than 28 February 1999. Copies of the draft constitution are available on request on e-mail to any member of the Clivia Club (because of high postal tariffs these will not be mailed). Once the draft constitution has been approved, every member will receive a copy of the new constitution.

I wish to thank everyone for their phone calls and letters of condolence which came pouring in when my father Tienie Holzhausen died. I am so sad that he did not live to see the Clivia mature from all the seeds sent to him to replace those stolen from his own crossings when he was in hospital. Some seeds came all the way from Australia. The seedlings are now with me and as they were sent with love they are doing very well. It is intended that the Clivia from these seeds will be grown in a special spot in my garden in remembrance of him.

Elda de Witt.

Membership Administrator

We welcome Tino Ferero, our new Clivia Club chairman, and we look forward to a fruitful and productive year. James Abel has held the position for the past five years and has done a splendid job, particularly with regard to matters concerning membership. We thank him warmly for his contribution and dedication.

- 1 We now have 478 members who have paid their dues and 71 who have outstanding balances against their names. A further 69 members will join our ranks on 1 January 1999. We hope Y2K problems at AD 2000 will be significantly absent.
- 2 Membership renewal notices accompanying this letter should be returned promptly. Those who are paid-up will not receive the notice. This applies also to Australian members, who will continue to work through Ken Smith (Tel. 047 54-3287).

The 'yyyy/yy' which appears at the top left-hand corner of the address label tells us 'year-paid/year-joined' and is your receipt.

We have decided not to send newsletters to members with outstanding fees and will also not send out reminders. The April 1999 issue of the newsletter will only be sent to members who have paid their 1999 subscriptions.

- 3 Please use the Clivia Club's Pretoria address for address/telephone/fax/e-mail changes. This applies especially where street deliveries have been discontinued.

Adri Haxton

Treasurer

The membership fees for 1999 have been increased to R60,00 for local members and to \$30 or equivalent for overseas members.

In future the Clivia Club's financial year will be from 1 July to 30 June as this will make it easier for reporting purposes at the AGM.

Koos Geldenhuys

Editor

Our public relations secretary and family will look back on 1998 as a year of numerous personal vicissitudes. Elda lost her father, Tienie Holzhausen in August. This was followed by a burglary and a little later there was a veld fire on the property which came to within a few metres of the house. A nephew was killed in a motor accident and Kobus, Elda's husband, had major surgery. After all this bad luck imagine their joy when they heard that they were to be adoptive parents again. Their new daughter Suanè arrived at the end of October and we wish them lots of luck with their new addition. Although Elda is going to have her hand's full, we hope the following year will be a happier one.

After the Clivia '98 Conference I had a cervical fusion as degenerating discs with subsequent pressure on

nerve roots was limiting the feeling and function in my right hand. During my recovery I was unable to sit at a desk and write or type. Although I still wear a cervical collar for driving, writing and computer work, I am now fully recovered.

My grateful thanks to all those who helped me with this newsletter, especially Adri Haxton who captured data, brought it to me and finally helped me to compile the newsletter and proofread articles. Another big thank you to Eileen Rose who typed 10 pages faxed through to her in record time and then e-mailed them back to me.

Please keep the letters and articles about Clivia rolling in. A small comment about something can generate a tremendous amount of interest and discussion.

Meg Hart.

..*..

CORRESPONDENCE

Perceptions of “yellow” clivia

From Bill Morris PO Box 17, Medowie, N.S.W. 2318, Australia

28 July 1998

Dear Meg,

Hopefully only a short note this time. In the December 1996 Newsletter, Celia van Vuuren wrote about yellow clivia seedlings then said: “What about the cream flower”? A little further on she mentioned “creams (termed as whites)”.

In Australia the old original (vegetatively propagated) yellow, now called “Flowerdale Yellow” was usually called the cream clivia. When I flowered it myself, I couldn’t see any real difference from any of my other “yellow” clivias. Some seedlings flower somewhat paler than others but in a bed of seedlings I cannot see much difference between them.

Generally, as the flowers approach falling, they fade and are between cream and white (to my eyes). I have thought that perhaps the flowers are paler (cream?) when planted out in the garden where there is shade from trees rather than under shade cloth. Under trees they are often exposed to direct sunlight for an hour or two, either in the early morning or late afternoon, sometimes both. Also, I think the flowers are paler when they flower in warm weather than if the weather is cool. I think this could also affect them more in the open garden than under shade cloth.

When Ken Smith and I put on a clivia display at a large nursery in Sydney some years ago, we had about seven yellow clivia plants on show. We were intrigued by the comments of the public when seeing them so we kept a list. These included:

- “Look at the yellow clivias (flowers, etc.)”
- “Look at the cream clivias”
- “Look at the white clivias”
- “Look at the gold clivias”

“Look at the greenish clivias”

So I have concluded that the following factors can affect “yellow clivia” flower colours:

- 1 Light
- 2 Age
- 3 Temperature
- 4 Perhaps most important, people’s perception of colour

A final complication comes when people tell you: “I have seen a photo of (1) a white clivia
(2) a gold clivia
(3) a ‘real’ (or deep) yellow clivia etc.”

After photographing a lot of clivias, I find the orange/red flowers are very easy to get the colour fairly close to the original flower. But yellows are much harder, not only the original print, but when the photo is reproduced in magazines etc. If overexposed or photographed by flash, they often turn out white. If underexposed, they can be gold. If you are dissatisfied with a print and take the negative back, the lab. can very easily bring it up or take it down in colour. When a group photo is of orange and yellow flowers, it is usual to get one [colour] right, but not the other.

Finally, to come back to “What about the cream flower”, I call them all yellows (a pale butter yellow) and the cream may be due to conditions or people’s colour ideas.

I am not saying that there are no true cream flowers, only that most clivias called ‘cream’ are just normal yellows that have faded slightly due to the factors mentioned or are simply subjective estimates of colour.

Yours sincerely

Bill Morris

We thank Bill for another letter in which he puts so succinctly what we all think but don’t know how to put into words. I would agree that people’s perception of colour differs. My perception of ‘yellow’ clivia is that they are cream. Yellow to me is what one sees in the yellow of a daffodil! I would also call butter cream, not yellow.

Wessel Lötter was recently sent a photograph of a so-called “white” clivia. He subsequently took a photograph of one of his yellow clivias in bright sunlight and this clivia appeared to be white in the photograph - exactly the same as the other so-called white clivia. Ed.

..*..

Fragrance in Clivia

From Lois Harvey 1/12 Russell Street, East Gosford, 2250, New South Wales, Australia

28 September 1998

Dear Meg,

Flowering time here - very exciting. I guess you all in midst of convention. I do hope we can have a printout of the papers presented.

The newsletter now very interesting with some very good input. Thank you.

Enclosed a photo of Clivias growing in stones (no soil) which I planted at my daughter's place a couple of years ago - F₁'s. It demonstrates how desperate they are with reproducing themselves putting out pups and the flower on the small division. Southern side of the house - no light or water - utter neglect. They do better with a lot less TLC than the rest of the family here. Sorry about quality of photo.

Is anyone interested in the perfume of Clivias? My original plant Aurea has a very nice scent and the F₁'s from this give off a heady scent massed as they are here. I'll put these back to Aurea and hopefully all plants will have a good perfume. A definite plus I think.

Kind regards,
Lois Harvey.

Thank you for your letter and photograph, Lois. The Cape Province Branch of the Clivia Club will be publishing the papers given at the Clivia '98 Conference and there will also be a video of the conference proceedings for sale. They hope to have these available early next year.

It appears that the conditions on the South side of your daughter's home are ideally suited to clivias. The stones would provide them with good drainage and they obviously receive enough rainwater to survive and reproduce. My neighbour has Clivia planted in heavy, clayey soil and they are most unhappy in it because of the poor drainage. And yes, they do seem to thrive when neglected rather than pampered. This would not apply to show specimens which do need a bit more attention to ensure good, even, undamaged foliage.

Many Clivias are fragrant, and the yellows and pastels more so than others. However, some of the orange C. miniata are also highly scented - why this should be the case with some but not with others, I do not know. Perhaps some other club members could throw light on this aspect. Editor.

..*..

Colchicine and variegation in Clivias

From Chris Vlok PO Box 99583, Garsfontein 0060, South Africa

23 November 1998

Dear Meg

Strange how life is. In my wildest dreams I would never have thought it possible that a rock and surf angling fanatic like me would write a letter to a plant society enquiring about white stripes in plant leaves. At least I can explain how it became possible.

In 1995, very soon after I moved from Cape Town (the cradle of South African Rugby) to Pretoria, I was honoured with a visit from Fred Gibello. My father and Uncle Fred had been colleagues and close friends for many years. On his arrival at our place he spotted some plants which my wife had uprooted from our garden in Cape Town and planted at Pretoria. I still do not know what attracted his attention - the fact that the plants were Clivias or because the container was placed against a nice warm north facing wall? My wife was immediately escorted to the nearest pharmacy to buy a bottle of Savlon. The plants were again uprooted by Uncle Fred and then carefully washed with a diluted Savlon solution. I got the feeling that the rarity of the plants (of which we did not even know the name) could perhaps be compared with that of the Coelacanth. Anyway, after the "operation" uncle Fred asked me to take him to a friend of his staying in Lynnwood. That is where I met Amie Grobler, one of the biggest Clivia growers in Pretoria. There you

have it! The chance of not becoming hooked on Clivias after meeting two founder members of the Clivia Club on the same day is rather remote.

To return to the topic of variegation in Clivia. In the January 1998 Newsletter, Vol.7 Number One, in the article "Variegation in Clivia Leaves", mention is made of the use of Colchicine (the drug used to treat gout) as a means of changing the genetic pattern of plants which then produces variegated leaves. One of our members in Pretoria, Kerneels Buitendag has put this to the test. He crushed Colchicine tablets to powder and worked the powder into the potting soil of plants which already had berries on them. This was done in January, so the seeds were already about three months old. His experiment produced $\pm 8\%$ variegated seedlings.

Are there any Clivia Club members who know anything about experiments done with Colchicine and do they have any results? There are many questions to be answered. How much powder should be added to the plants? At what stage should it be added? What percentage of variegated seedlings is obtained in this manner? Would the percentage variegated seedlings increase if more powder were used? Can treatment be repeated on the same plants? Kerneels heard that repeated use of Colchicine could eventually kill the mother plant. I would not like to lose plants, but I am prepared to take the risk on a few Clivia. Imagine how many plants I would be able to sell down south if I eventually succeed in growing Clivia that match the blue and white stripes of the Western Province rugby jersey?!

Regards,
Chris Vlok

..*..

Clivia in California

Harold Koopowitz and James Comstock 14081 Brenan Way, Santa Ana, CA 92705, USA

November 1998

Clivia have long been a standard feature of the Southern Californian landscape where they are extensively used in shady areas for commercial landscape projects and are also often planted on the shady sides of houses. For many years the plants were only produced from seed and only recently have divisions of known cultivars become available in the general trade.

The wide leafed Belgian hybrids have played heavily in the background of Clivia in California and one sees relatively few of the older narrow leafed *C. miniata* types. Most of the Clivia available in the local nurseries these days are of the darker orange to orange-red types. Softer pastel oranges and those with pinkish shades are quite rare. Because of the large numbers of Clivia offered in the nurseries one can assemble a very good collection of fine selected clones if one is prepared to visit enough nurseries during flowering time.

About 30 years ago, there was a rare bulb and plant nursery, Giridlians, who imported and offered a number of Clivia strains including the older Belgian hybrid strain, and the Blackbeard strain, which were imported from Gordon McNeil.

There are wholesale breeders of Clivia, including two that specialize in, and mass produce yellows. Another different nursery in San Diego produces and sells seed of yellows. Over the last two years, yellow Clivia seedlings coming into spike for the first time were available at one southern Californian chain of nurseries. Plants were on sale for \$35.00. I was able to select an especially fine yellow. Usually, the nurseries have special Clivia promotions during flowering time, when they will bring in a large stock of orange-reds in flower and offer them at sale prices, usually between \$10 and \$20 each. Plants have usually only one or two fans and one spike. At that time one can often find really good plants. Nearly all Clivia breeders in the area have also found exceptional plants this way.

A few years ago divisions of a Clivia trademarked 'Flame' became available. This Clivia opens orange-red, which then changes to a fairly dark red that extends deep down into the throat of the flower. It is still one of the darkest flowers that we have available. Plants were priced at \$35, which we thought was reasonable. One interesting colour that is appearing is a combination of orange-red over green that produces a unique brick-brown coloured flower. Despite the description these are very attractive flowers. Variegated Clivias are also much sought after and while they are relatively easy to produce, it is difficult to obtain good ones and they command high prices.

Dwarves and species are harder to get and there is probably more interest in species than in the dwarves at the moment. *C. caulescens* and *C. gardenii* are almost unknown in cultivation and the plants masquerading as *C. nobilis* are doubtful. *C. cyrtanthiflora*, on the other hand, is available.

Several amateurs also have breeding projects that produce thousands of seedlings but many of those people maintain a low profile and it is difficult to know how many there are, what they are doing or what they have achieved.

In Santa Barbara, David Conway has a small Clivia nursery where instead of seedlings one can buy divisions of selected and named clones. He not only produces a catalogue but has also issued a CD Rom that has colour portraits of his main named cultivars. As might be expected these special plants command

appropriate prices.

Some three years ago a mini symposium was held at the Huntington Library and Botanic Gardens in San Marcos near Pasadena. About eight Clivia enthusiasts and breeders got together to devote a day to their favourite plant.

A California Branch of the Clivia Club.

We are interested in organizing a California branch with perhaps an annual meeting to coincide with the flowering season, probably alternating between southern and northern California. If there are other members who are interested in joining or helping organize such an organization, please contact Prof. Harold Koopowitz at (714) 838-4826 or e-mail him at hkoopowi@uci.edu.

Harold Koopowitz and James Comstock

We hope you are successful in your endeavours to start a branch in California. Editor.

..*..

A New Zealand perspective of Clivia in South Africa

By Keith Hammett

I first discovered *Clivia miniata* in my late teens when I went to Southampton University in England to study botany. A clump of *C. miniata* was growing in one of the Botany Department green houses. This was a specimen of the one accession of "species" *C. miniata* which seems to have been taken into cultivation outside South Africa. My father and I grew and exhibited plants of this at local flower shows in Southern England for several years before I emigrated to New Zealand in 1967.

A new country, a career and young family did not leave much room for Clivias. When I moved to my present home and established some trees I did obtain plants of that same "species" *miniata* which is widely grown in the warmer parts of both Australia and New Zealand. However, it was not until 1987 when I read an article by Kevin Walters of Toowoomba, Australia and saw pictures of his yellow Clivias that my interest really caught alight. I wrote to Kevin who was very generous and sent me seed of his yellow strain. I duly waited for four years until these flowered and then became acutely aware of how little *Clivia* germ plasm we had in New Zealand and consequently how limited were the possibilities of developing a serious breeding programme.

I discovered the existence of the Clivia Club from the adverts placed in *Veldt and Flora*, duly joined and gained some idea of where the known collections of Clivia were. During the 1980s with my family grown up I had the opportunity to travel fairly widely and was able to visit various collections in various countries. In 1993 I had the unique experience of visiting Yoshikazu Nakamura in Japan one autumn afternoon and being with Kevin Walters in Australia the following morning in late spring.

In 1994 I had the privilege of attending the inaugural conference of the Clivia Club held in Pretoria and of travelling with Nick Primich in the company of Yoshikazu Nakamura and others to see various *Clivia* species growing in habitat. On my way to South Africa I had visited various collections in the USA and was able to report on these at the conference.

At that first conference there was a general feeling that "other people overseas had done far more with

Clivia than had been achieved in South Africa". Having gained a reasonable overview, I was not so sure.

This year I found that the Clivia Club was not simply centred in Pretoria, but has active groups in Natal and the Cape Town area. It was very encouraging to find that each of these groups has a different focus and that the three shows were quite different in concept.

I was impressed by the research which has gone into determining the origins of the various clones and to find that Val Thurston has produced a very useful publication detailing much of this information. To the best of my knowledge this is the first booklet on the Clivia in English. Interestingly there are several detailed publications in both Japanese and Chinese.

I was also thrilled to see the plants collected in the Transkei which were exhibited at Kirstenbosch. It was hard to comprehend that these were not highly developed hybrids, but were wild accessions.

In my estimation something like 75% of the people now involved in the Clivia Club in South Africa were not there four years ago. The Club has acted as a focal point and people with extensive collections and many years experience have "been discovered". I was truly impressed with some of the plants and collections that I visited. It is always a risk to single out individuals, but as a breeder I have to say I was very impressed by the collections of Anna Meyer and Margot McNeil. Wonderful diversity, great beauty.

Make no mistake, South African growers have done great things with the Clivia and have all the germ plasm at their fingertips. No one overseas has done more.

As a botanist as well as a plant breeder it is especially rewarding for me to see plants growing where they have evolved over many millions of years. Indeed on my previous visit to South Africa to see *C. nobilis* growing in association with *Streptocarpus*, *Strelitzia* and *Plectranthus*, plants I had only known in pots, was a near religious experience for me. This time to visit this same site and to find it devastated by goats was very disappointing. Equally to see low quality seaside cabins built directly on top of another population of *C. nobilis* was a reminder of just how quickly millions of years of evolution can be erased by thoughtlessness and greed.

I found a similar story with regard to populations of *C. miniata*. Connie Abel has a population of plants in her garden in Pretoria which came from Ixopo. Recently when visiting Ixopo she had asked to see the wild populations from which her plants had been derived only to learn that they were all gone. On my return to New Zealand it gave me particular pleasure to see plants of this same population flower for the first time from seed Connie had given me four years earlier.

At a time when many countries around the world are becoming sensitive about "their" plants being exported and exploited in other countries, it is perhaps salutary to remember that often plants are safer in the hands of enthusiasts overseas than they are at home. It is common worldwide for people to give greater value to an exotic than they do to the weeds that grow at home.

Cheers,
Keith.

The Clivia Club has certainly come a long way since its inception in 1992. Not only has it helped to increase members' knowledge of the genus, but it has helped to bring enthusiastic growers, professional and amateur, together. I am always amazed to observe how people can go on and on discussing clivia.

One hears of clivia populations being decimated for one reason or another, so perhaps it is just as well that there are so many enthusiasts growing them in their gardens to prevent extinction. Editor.

..*..

Wild clivia populations as a source of “new” mutations

From Bill Morris

PO Box 17, Medowie, N.S.W. 2318, Australia

28 July 1998

I recently received a copy of the new publication “The Clivia” by Val Thurston. I was most interested to read about the new clones of yellow and peach clivias that have been recently discovered in the wild. It suddenly dawned on me that most clivia growers and breeders were overlooking some important aspects of such discoveries and I would like to enlarge on this matter as follows.

Mutations are relatively rare events but occur fairly constantly. Figures like one occurrence in ten thousand seedlings per year are sometimes quoted. So when one examines an area of clivias growing in the wild, it is possible, if the numbers of plants are large enough, to have a reasonable chance of finding some mutations. Of course it is also possible, or likely, that someone else has been there before you and removed the obvious ones.

However if we consider the occurrence of yellow mutations (just as an example) there are a number of things to be remembered.

First, when a mutation occurs, it usually affects only one gene. As all the normal orange plants are diploids, they are homozygous for the orange colour and the mutation only affects one gene out of each pair, therefore converting the homozygous plant into a heterozygous plant. That is, the plant has one normal gene and one mutated gene for that particular pair.

Now orange colour is dominant over yellow so that the first mutated plant continues to flower orange. However in clivias, the orange colour is not totally dominant, it is only partially dominant. The orange colour of a heterozygous plant is paler than the parent orange plant.

After the mutation has occurred you have one mutated heterozygous plant in an area containing perhaps a thousand other homozygous orange plants.

As most clivias do not set many seeds to their own pollen even when hand pollinated, it is probable that they are plants which are usually pollinated by pollen from other plants in their near vicinity. These other plants will always be homozygous, at least to start with, and the mutated plant’s offspring will be 50% homozygous orange and 50% heterozygous orange plants. The new heterozygous seedlings will again most likely be pollinated by homozygous plants and in this way the mutated gene will slowly spread throughout the colony.

It is only when a certain number of heterozygous plants are growing in the colony that two heterozygous plants may cross so that a homozygous recessive plant (yellow) will appear. Until this point the gene will be present throughout the colony only in the recessive condition. It is theoretically possible that the original mutated plant could self (giving 25% yellow offspring) but the chance is very low and the chance of getting a yellow increases steadily as the gene spreads throughout the colony.

In general the yellows are somewhat slower in growth and somewhat less vigorous than the wild orange

plants and when one considers the thousands of years a colony may have existed, an original mutation may have spread throughout the colony producing a yellow or a few yellows from time to time. Again we have no idea how long a particular clone may live but I would suggest that the yellows are more likely to die out faster than oranges and also be less likely to reproduce themselves than the oranges.

So I would envisage a colony, containing a certain percentage of some original mutation, periodically producing a yellow plant or plants. One problem with yellow clones is that quite a few of them are sterile. This again decreases the chance of them producing other yellows in the wild and after they have been discovered and brought into cultivation it reduces the chance of using this particular mutation for whatever characteristics one is interested in or for experimental crosses.

However if the colony (or locality) is known, then a careful search for paler flowers (produced by heterozygous plants), or even paler plants, may locate one or more of the heterozygotes.

If these are pollinated by a yellow from the same colony or area, more yellows will be obtained in the first generation. Likewise, if say six possibly paler plants have been located and these are interbred, some yellows may turn up. Thus in any area where yellows (or other mutations) have been found, selfing if possible, or interbreeding a reasonable number of orange plants may produce unexpected results. Even if no yellows are now present the gene pool of the colony has potential for reproducing them.

One further point to be remembered is that if two yellows are found in the same colony or in close areas and even if they look quite different (indicating they are different clones) it is likely they carry the same yellow gene. The different appearance of the flower or plant itself may just be the variation produced by the rearrangement of all the other genes that occurs in each generation of seedlings while the rarer mutated gene is common to them.

Summary

If yellows from known locations are self sterile, backcrossing of these plants, using their pollen, onto non-yellow plants from the same locality, may produce yellows in the F₁ due to the presence of heterozygous orange plants in the population at that locality.

Even if no yellow plants are now present in an area from which they were once collected, crossing a number of orange plants from that area may produce some yellows due to the presence of the yellow gene in some plants in the population.

Due to the partial rather than total dominance of orange over yellow, it may be possible to select plants for paler colour (than the average of the population) and a higher percentage of these may be heterozygotes.

If a number of different mutations (yellow, peach or other variants) have been collected from the one area, the obviously different appearance of the mutant plants may be just variations between different clones and the mutant characteristic is most likely due to the same altered gene.

Thus if all yellow, peach or other homozygous examples of a mutation have been collected from an area and perhaps lost, the original population of plants remains a potential source of further examples of this particular mutation.

Bill Morris.

The problem is that these original populations are being decimated, and not much of the original gene pool remains. Where plants from the wild have been trans-located they are invariably cross pollinated by Clivias from other locations or “hybrids”, so few “pure” populations in cultivation exist. Ed.

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TRANSKEI CLIVIA

By John Winter Kirstenbosch National Botanical Garden, Private Bag X7, Claremont 7735

14 October 1998

Members will be pleased to hear of the achievements of the National Botanical Institute in investigating *Clivia* in the Transkei.

Firstly, it is important to point out that the NBI operates under the Forest Act No. 122 of 1984 which requires it, among other things, to maintain gardens where collections of indigenous flora are displayed and to undertake research on indigenous flora. Any plant collecting undertaken by NBI personnel is carried out to meet our obligations under this Act of Parliament.

The NBI manages eight botanical gardens in South Africa and its focus is on the flora of Southern Africa. All plants on display and in the living plant collections of each garden originate from plant collecting activities. All plant collecting is done by the horticultural staff from each garden and to a lesser degree by the researchers.

All collecting activities are thoroughly planned and are executed only under a collecting permit from the local authority concerned. On completion of the collecting expedition, a list of plants collected is sent to the local authority. All collecting data is recorded and each collection is given a collection number. The information recorded is confidential to the NBI.

Collections of research material on *Clivia* in our herbaria at Pretoria and Kirstenbosch are appallingly inadequate (there are only three specimens of *C. miniata* and four specimens of *C. nobilis* in the Compton Herbarium!). Surprisingly no taxonomic research has ever been undertaken on *Clivia* - the species has simply been described piecemeal.

Some years ago Mick Dower told me of reports which he had received of *Clivia* found in the Transkei. He obtained from enthusiasts in the Eastern Cape two yellow *C. miniata* reported to have originated from different parts of the Transkei.

I did some research myself and established that *Clivia* would be found in the Transkei. The bulb collection at Kirstenbosch is curated by Graham Duncan. I discussed with him the need also to improve the *Clivia* collection at Kirstenbosch and with his agreement planned the first trip to the Transkei three years ago.

My reasons for concentrating on *Clivia* at that time were:

Potential of *Clivia*

Poor collections in all NBI gardens

Poor herbarium records

The need for a reasonable range of material for taxonomic revision.

I invited Mick Dower to join me because of his knowledge of the Transkei and his contacts with people who could help us find *Clivia* there, but on the strict understanding that he would respect the NBI's confidentiality.

We have undertaken three trips with varying success which has improved with experience. *Clivia* have survived depredations only where they are in hostile and inhospitable locations. We have been told of colonies that no longer exist because they were too accessible to human habitation.

I have recorded their specific localities with the NBI and these cannot be revealed even in general terms save only that *C. miniata* are reported to have been found as far west as the Koekoek River west of the Kei and as far east as the Eastern boundary of the Transkei. Pendular flowering forms of *Clivia* found in the Transkei have similarities with both *C. nobilis* and *C. gardenii* and are being further investigated.

My collections have not been confined to *Clivia* but have included other groups of plants. They have also not been, and will not be, confined to the Transkei - collecting various groups of plants is an ongoing activity of the NBI in which I and many others are involved.

I arranged for a display of the NBI collection of Transkei *C. miniata* at the Cape show last year to illustrate the quality and forms of *C. miniata* which grow in the wild in the Transkei. It was very well received and this goodwill encouraged me to repeat the display this year, especially for the wider interest group which would be attending the International *Clivia* Conference.

The active development of the NBI *Clivia* collection at Kirstenbosch has resulted in the breeding of a number of very desirable forms, derived from the numerous clones of *Clivia* in the Kirstenbosch living collections. One of these is the well known "Kirstenbosch Yellow" which Nick Primich remarked, when judging the Cape Show last year, could be shown in a class of its own. Its distinguishing features are its large umbel with recurved petals and that its offspring are 100% yellow. The NBI initiative has also resulted in the once very rare yellow *C. miniata* now becoming readily available to the public at the Kirstenbosch plant shop at a reasonable price. Seed from the original "Kirstenbosch Yellow" was made available by the NBI for the first time this year and was quickly sold out. Steps have been taken to increase this seed production.

The *C. miniata* collected in the Transkei have their own distinguishing features particularly the colour variations and flower size which will enable the NBI to develop new cultivars and, in time, make them available to the public.

The NBI also promoted the formation of an interest group of *Clivia* enthusiasts centred on Kirstenbosch. This developed into the establishment of a Branch of the *Clivia* Club which the Eastern Cape members have also chosen to join. This Branch has thrived and grown in a spirit of goodwill and sharing and strives for excellence.

It will be seen, therefore, that in this involvement with *Clivia* the NBI has been particularly successful in fulfilling its role of conserving and displaying our indigenous flora and in providing research material.

Yours sincerely,

JOHN WINTER
Deputy Director: Horticultural Services.

Some of the *Clivia* specimens on show in the Glass House at Kirstenbosch were magnificent, and the size of the seed heads was something to marvel at. Thank you for sharing some of your finds with us. Editor.

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PROGRESS REPORT ON *CLIVIA MINIATA* RESEARCH AT THE UNIVERSITY OF PRETORIA

From Craig Honiball P.O. Box 12485, Hatfield 0028 (Pretoria)

We have been busy with our work for about 10 months and I am pleased to report on some of our progress. I would like to thank the Club for the contribution towards our work and also all the members who donated plants. Furthermore, we are also grateful to Abbott Laboratories, Hadeco, Rhône Poulenc and Sanachem for their support. I am able to report on three areas, namely: forcing plants into flower, hormonal manipulation and market prices for cut flowers.

Firstly, for our work on flower forcing, we did a preliminary investigation based on the procedures and findings of Mori & Sakanishi (1974) and De Smedt *et al.*(1996). We carried out an experiment with seedling plants which had never flowered before and which were 3 - 4 years old according to the supplier. We acquired the plants in February this year, re-potted them in a bark based medium and commenced the temperature experiments approximately 2 weeks later. A cold treatment of 10°C (night) and 15°C (day) was applied in a growth chamber with a 12 hour dark / 12 hour light cycle. We withdrew plants from the cold chamber after 11, 22, 33 and 44 days and placed them in a greenhouse with natural light which was maintained at a constant temperature of 25°. Of the total number of plants which received the cold treatment (80), approximately 25% produced flower scapes within 30 - 60 days of removal from the cold chamber. Scapes emerged from a portion of the plants in each time category ie 11, 22, 33 & 44 days. All the flower scapes produced were of a normal length and none were abnormally short. Of the control plants which did not receive a cold treatment and which were kept at ambient environmental temperature, approximately 5% flowered. We found the results interesting in that other literature (Mori & Sakanishi, 1974 and De Smedt *et al.*, 1996) indicates a longer cold requirement to be necessary for successfully forcing plants into flower. During August this year, a cold treatment similar to the one applied in February, was again applied to those plants which had flowered after the first forcing treatment. About 50% of these plants flowered a second time. We are using these results in order to plan further experiments which could give a better understanding of how temperature might be used to control the flowering period in *C. miniata*.

Regarding hormonal manipulation, we have been experimenting with the use of Gibberellic Acid to enhance elongation of flower scapes which are abnormally short. This may be useful where one has a very desirable plant which one wishes to pollinate and where the "trapping" of the flowers between leaves near the growing point prevents this. Our findings are not conclusive but there appears to be some benefit in applying a few drops of a 4000 ppm Gibberellic Acid solution into the leaf axil where the offending inflorescence is located. It appears that several applications (in the region of 1 every second day for ten days) has an effect. Should anyone wish to try this (at your own risk!) let us know what you observe. Gibberellic Acid is a well known plant growth regulator and we obtained it in a tablet form through Zeneca Agrochemicals in Johannesburg. They don't deal with the general public but their sales division would be glad to put you in touch with an agent closest to you. Perhaps the local co-op would also be able to assist. However, the substance remains relatively expensive at about R20,00 per tablet which contains 1g of the active ingredient.

Lastly, we were able to put a few stems of *Clivia* on the flower auction in Pretoria and Johannesburg, which is operated by Multiflora. It was interesting and a bit disappointing to see the reaction since the price per

stem obtained varied from about R0,70 to R2,70. However the sample was very small and a significant conclusion could only be drawn from an investigation on much larger scale. Does anybody have a few hundred or a few thousand stems which they would like to send to the auction? Contact me!

In the next newsletter I hope to be able to report on the post harvest treatment of cut flowers.

For any comments, drop me an e-mail: honiball@scientia.up.ac.za

REFERENCES

1. DE SMEDT, V., VAN HUYLENBROECK, J.M. & DEBERGH, P.C., 1996. Influence of temperature and supplementary lighting on growth and flower initiation of *Clivia miniata* Regel. *Scientia Horticulturae* 65:65-72.
2. MORI, G. & SAKANISHI, Y., 1974. Effect of temperature on the flowering of *Clivia miniata* Regel. *Journal of the Japanese Society of Horticultural Science*. 42(4):326-332.

We are pleased to hear that you are making good progress with your research, Craig. Keep up the good work. Is a growth chamber an expensive item? Will the small grower be able to have these facilities? Editor.

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ACTIVITIES OF CLIVIA CLUB BRANCHES IN SOUTH AFRICA

Northern Branch Clivia Club Show and Braai (5 & 6 September 1998)

The Northern Branch started off the Clivia festivities this year with their show at the Pretoria National Botanical Gardens. There were many new exhibitors with beautiful specimens on show. A constant stream of people attended but despite the good weather attendance was down on the previous year's numbers. Members came from far and wide with plants for sale and business was brisk throughout the day.

There were no official tours Sunday, but some members of the Clivia Club visited Gert Esterhuizen's terraced Clivia garden in the morning. The 'braai' at Velvich House at the National Botanical Gardens was most convivial and Keith Hammett and Pen Henry gave an outline of their papers to be delivered at the conference for the benefit of those who would not be able to be at Kirstenbosch. Another highlight of the afternoon was a visit to Anna Meyer's private garden above the Safari Nursery where she has a vast collection of clivia, some in the garden and others under shade cloth. These beautiful gardens will be described in the newsletter at a later date.

Meg Hart.

Northern Branch Show Results

SECTION 1 – MINIATA ORANGE		Third	Gert Esterhuizen
Class 1a	Miniata Orange - 1 umbel	Class 1b	Miniata Orange - 2 umbels
Best	Annatjie Holtzhausen	Best	Geoff Meyer
Runner-up	Pat Gore	Runner-up	Annatjie Holtzhausen

Class 1c umbels	Miniata Orange - 3 or more	Best	Frikkie Potgieter
		Runner-up	Kerneels Buitendag
Best	Pat Gore		
Runner-up	Pat Gore		

SECTION 2 – MINIATA RED

Class 2a	Miniata Red - 1 umbel
Best	Pat Gore
Runner-up	Pat Gore
Third	Norman Weitz

Class 2b	Miniata Red - 2 umbels
Best	Naomi van Draanen

Class 2c	Miniata Red - 3 or more umbels
Best	Pat Gore

SECTION 3 – MINIATA YELLOW

Class 3a	Miniata Yellow - 1 umbel
Best	Gert Esterhuizen
Runner-up	Tino Ferero
Third	Pat Gore

Class 3b	Miniata Yellow - 2 umbels
Best	Margaret Ross

Class 3c umbels	Miniata Yellow - 3 or more umbels
No award	

SECTION 4 - ANY OTHER COLOUR (EG. PASTEL)

Class 4a	Any other colour
Best	Annatjie Holtzhausen
Runner-up	Frans Gerber
Third	Norman Weitz

SECTION 5 - BROAD LEAF NO FLOWER

Class 5a	Leaf up to 100mm
No award	

Class 5b	Leaf more than 100mm wide
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SECTION 6 - BROAD LEAF WITH FLOWER

Class 6a Leaf up to 100mm wide any colour

Best Frikkie Potgieter
Runner-up Gert Esterhuizen
Third Gert Esterhuizen

Class 6b Leaf more than 100mm wide any colour flower

Best Frikkie Potgieter
Runner-up Pat Gore

SECTION 7 - VARIEGATED LEAF

Class 7a Variegated leaf no flower

No award

Class 7b Variegated leaf any colour flower

Best Elda de Witt
Runner-up Connie Abel
Best Pat Gore
Runner-up Pat Gore
Third Norman Weitz

SECTION 11-PENDULOUS SPECIES

Class 11a Gardenii in flower

Best Connie Abel

Class 11b Nobilis in flower

No award

Class 11c Caulescens in flower

No award

SECTION 12-MULTIPETAL

Class 12a Multipetal any colour flower

Best Pat Gore
Runner-up Pat Gore

SECTION 13-POT PLANT

Class 13a At least 3 crowns at least 2 in flower

Best Geoff Meyer
Runner-up Norman Weitz

SECTION 14-DISPLAY PLANT

Class 14a Any clivia in flower with rockery stones, driftwood, other ornamental

Third Chris de Lange

Class 7c Variegated seedling up to 11 leaves

No award

SECTION 8 - MINIATURE

Class 8a Miniature no flower, at least 12 leaves

Best Alec McLeman
Runner-up Adri Haxton

Class 8b Miniature any colour flower

SECTION 9 - MINIATURE VARIE-GATED LEAF

No award

SECTION 10-INTER SPECIFIC HYBRID

Class 10a Inter Specific Hybrid in flower any colour plants, moss, etc.

Best Connie Abel

SECTION 15-ANY UNUSUAL FORM

Class 15a Any unusual flower

Best Norman Weitz

Class 15b Any unusual leaf form with or without flower

No award

SECTION 16-SEEDLING TRAY

Class 16a Tray with seedlings up to 12 months old

Best Louis Swanepoel
Runner-up Louis Swanepoel
Third Dawie Strydom

SECTION 17-ANY CLIVIA IN FRUIT

Class 17a Any Clivia in fruit

Best Pat Gore
Runner-up Pat Gore

SECTION 18-CUT FLOWER

Class 18a Cut flower

No award

BEST ON SHOW

Gert Esterhuizen - Yellow miniata - 1 umbel

RUNNER-UP

Geoff Meyer - Orange miniata - 2 umbels

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KwaZulu/Natal Clivia Club Show and Tours (12 - 14 September 1998)

Herewith the results of our show and a bit of a write-up!

The KwaZulu Natal Clivia Club show went off very well. The display was really extremely impressive. The masses of orange and yellow clivias were a spectacular sight as well as the numerous indigenous plants that grow alongside clivia in the wild. There were thirty-five plants exhibited and the attendance was a great improvement compared to the show last year.

The field trip to Krantzkop was a great success and it was wonderful to see so many clivia growing in such masses undisturbed for many years. It was interesting to see that the colour did not vary much and the plants all looked alike. Plants seen at another location were totally different in colour but similar in leaf shape.

On Monday 14th September ± ten members of the Natal Branch accompanied by James and Connie Abel, Keith Hammett and Pen Henry went on an excursion. We started by visiting Mr and Mrs Roly Strachan of Ixopo. He has a very impressive collection with all the genetic material originating in the Ixopo area. Some very interesting specimens were observed. Roly has a planting ± fifteen metres wide and ± seven hundred metres long down one side of his driveway and this is not all. He has just as many in the garden under Podocarpus trees (Yellowwoods). Roly reaps and sells a percentage of his seeds annually. A braai lunch was held at Tala Game Farm where we viewed clivia in the braai picnic area. Finally we visited the farm of Mr Stainbank in the Gwahumbe Valley where both *C. miniata* and *C. gardenii* were viewed in habitat, a most beautiful spot.

KwaZulu/Natal Show Results

Best Yellow - 1 flower head

1	Marie van der Merwe	3
2	Sean Chubb	2
3	Brian Tarr - Pietermaritzburg Botanic Gardens	1

Species

1	Sean Chubb	3
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Variegated - with flower

1	Sean Chubb	3
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Best Yellow - 2 flower heads

1	Val Thurston	3
2	Gavin Westbrook	2

Variegated - no flowers

1	Val Thurston	3
2	Val Thurston	2

Any other colour - 1 flower head

1	Sean Chubb	3
2	Jean-Luc Bestel	2

Interspecific Hybrid

1	Brian Tarr - Pmb. Bot. Gardens	3
2	Brian Tarr - Pmb. Bot. Gardens	3

Any other colour - 2 flower heads

1	Val Thurston	3
2	Sean Chubb	2

Pot Plant

1	Robin Holmes	3
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Best Orange - 1 flower head

1	Des Andersson	3
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Most unusual

1 Carole Beckett 3
 2 Sean Chubb 2

Best Orange - 2 flower heads

1 Marie van der Merwe 3

Broad Leaf - No flower

1 Pat Quinn 3

POINT SCORES

Sean Chubb 18
 Val Thurston 11 or (*16)
 Marie van der Merwe 6 or (*7)
 Pmb. Bot. Gardens 6
 Carole Beckett 5

2 Carole Beckett 2

Plant with Berries

1 Sean Chubb 3

BEST ON SHOW - Val Thurston

RUNNER-UP - Val Thurston

BEST YELLOW - Marie van der Merwe

Robin Holmes 3
 Pat Quinn 3
 Des Andersson 3
 Jean-Luc Bestel 2
 Gavin Westbrook 2

* If points awarded for Best on Show (3), Runner-up (2) and Best Yellow (1).

Val Thurston

..*..

Cape Province Branch Clivia Club Show (19 - 22 September 1998)

The Cape Province Branch's Annual Clivia Show held at Kirstenbosch National Botanical Garden from the 19th to 22nd September this year, held concurrently with CLIVIA '98, was a great success. A total of 2200 visitors attended the show and what was most encouraging, we signed up 58 new members, 3 of whom were from other countries. Unfortunately heavy wind and storms from the Sunday afternoon affected the numbers of persons attending the show. Twelve members exhibited, as compared with seven last year. The awards were as follows:

Class 1 *Clivia miniata* in flower (Orange)

1 Ian Brown
 2 Ian Brown
 3 Ian Brown

1 Jim Holmes
 2 Jim Holmes
 3 Jim Holmes

Class 2 *Clivia miniata* in flower (Red)

1 John Winter

Class 6 *Clivia* species (excluding *Clivia miniata* in flower)

1 Ian Brown

Class 3 *Clivia miniata* in flower (Yellow)

1 Jim Holmes
 2 Gert Wiese
 3 Gert Wiese

Class 7 Crosses of different *Clivia* species

1 Jim Holmes

Class 4 *Clivia miniata* in flower (Pastels)

1 Gert Wiese
 2 Jim Holmes
 3 Jim Holmes

Class 8 *Clivia* variegated foliage
 ?

Class 9 *Clivia miniata* in flower (Broad leaf)

1 Gert Wiese
 2 Gert Wiese
 3 Mary Steyn

Class 5 *Clivia miniata* in flower (any other colour)

Class 10 *Clivia miniata* in flower or fruit

(miniature)

- 1 Jim Holmes
- 2 Jim Holmes

Class 11 *Clivia* specimen plant in bloom

- 1 Gert Wiese
- 2 Jim Holmes
- 3 Gert Wiese

Class 12 Any unusual *Clivia*

- 1 Ian Brown
 - 2 Gert Wiese
 - 3 Alfredo Gibello
- John Winter.

Class 13 A seedling flowering for the first time

- 1 John Winter
- 2 Mary Steyn
- 3 Hylton Venter

Best on Show A specimen plant in bloom – exhibitor Gert Wiese

Runner-up A seedling flowering for the first time – exhibitor John Winter

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Northern Branch *Clivia* Club Meeting (31 October 1998)

A meeting of the Northern Branch was convened on Saturday 31 October at 14:00 at the National Herbarium, Pretoria National Botanical Gardens. Despite the fact that the rugby match of the season was on at Loftus Versfeld in Pretoria between the Northern Transvaal team (the Blue Bulls) and Western Province team, there was a good turnout of about 40 members.

Tino Ferero welcomed the members and explained that one purpose of the meeting was to elect the first separate Northern Branch management committee. Eleven members were nominated and unanimously elected. It was decided that they would choose the office bearers amongst themselves at another meeting.

Louisa Liebenberg spoke on “The taxonomy of the genus *Clivia*”. She explained where the genus *Clivia* fitted in to the taxonomy and why it did. Louisa had some very good charts and slides to illustrate her talk.

Specimens of *C. nobilis* and *C. caulescens* were exhibited at the meeting and their differences explained.

Meg Hart.

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Northern Branch News

At our meeting on the same day that the Barberton Daisy proved to be superior to the Cape Disa, eleven members were nominated for and elected to the Management Committee of the Northern Branch. Being the first ever management committee selected solely to serve the *Clivia* fraternity in the northern part of our country, we decided to have a brainstorming session to gather inputs on how we should serve our members. The session was held on Saturday 8 October and proved to be a big success. We focused on three topics namely:

- How we should attract new members and make these new members as well as our existing members happy long-term members.
- What kind of activity should be incorporated into our year program.
- Fund-raising strategies.

Very soon all the inputs will be incorporated in a questionnaire that will be sent out to all our members. Only after we have received their feedback, will we finalise our year programme. At this stage we can only give the date of our first meeting and the date of our annual show.

Our first meeting is scheduled for 15:00 on Saturday 30 January at the National Botanical Gardens in Pretoria. The topic for discussion will be **The Clivia Calendar**. From the inputs we will attempt to compile a calendar that will give information on when to divide plants, when berries can be harvested, when lily borer gets active and what should be used to combat such pests etc, etc. We will appreciate inputs from the Cape and KwaZulu Natal branches. We are prepared to tailor-make the calendar for you members - giving the dates of meetings, shows, school holidays and public holidays. Please help! Contributions can be forwarded to any of the addresses labelled below.

Postal address	Fax	e-mail
The Secretary	Chris Vlok 012-429 3221	vlokac@alpha.unisa.ac.za
Clivia Club: Northern Branch	Chris Scribante 011- 773 4916	chriss1@transnet.co.za
5 Christo Avenue Birchleigh (Kempton Park)		
1618		

We have been approached by the KwaZulu/Natal Branch with a request that the use of the first Saturday in September as a show date should be rotated between the two branches. We have decided to give Natal first option in 1999 - our show will be held on 11 September. We still have to decide on a venue.

The following members have been elected to the newly formed Northern Branch:

Position and name	Tel	Fax	e-mail
Chairperson: Chris Vlok	012 998 5942 (h) 012 429 6023 (w)	012-429 3221	vlokac@alpha.unisa.ac.za
Vice Chairperson and seed banks : Dawie Strydom	011 888 2497 (h)		
Secretary: Chris Scribante	011 972 4587 (h) 011 773 3283 (w) 083 458 4849	011 773 4916	chriss1@transnet.co.za
Treasurer: Louis Swanepoel	011 391 1197 (h) 011 773 3495 (w) 083 297 4533	011 773 2908	louiss@transnet.co.za
Convenor Show Committee: Frikkie Potgieter	012 335 4590 (h) 082 979 4436		
Member's interests: Gert Esterhuizen and Pat Gore	012 803 6419 012 335 3804		
Public Relations Officer:	012 998 5942 (h)		

Antoinette Vlok	083 2285 073		
Year Program Coordinators: Anita & Dries Duvenhage	012 664 2836 (h) 082 572 7065		
Additional member: Bertie Guillaume	015 517 7162 (h)	015 517 738	

Best wishes from Northern Branch for the Christmas season and may 1999 be the year of extraordinary flowers.

Chris Vlok

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OBITUARIES

Johan Kluge

Johan Kluge (50) died on 12 June 1998. At the time of his death he was curator of the Lowveld National Botanical Garden at Nelspruit, a post he held for 18 years. Johan's primary botanical interest was in ferns and Cycads, and he built one of the finest collections of ferns in any botanical garden in Africa. His work on Cycads has made the Lowveld National Botanical Garden the most complete collection of African Cycads in the world. His early death is a great loss to botanical work in South Africa.

Tienie Holzhausen

Tienie Holzhausen died on 26 August this year following complications after a knee operation in June. It is very sad that Tienie, who wrote the article "What am I going to do with everything?" in the last newsletter, died when it was thought he had turned the corner and was well on the road to recovery. In December last year Tienie and his family were backpacking on the Otter Trail, so it came as a shock when this agile man of seventy-four died within a year of that strenuous hike.

Tienie had Clivia in his garden for many years, but it was only when he became an enthusiast about five years ago that he started breeding Clivia. The Clivia that won the "Best on Show" in 1997 was a plant from his own crossings.

Piet Olivier

Piet Olivier from Port Elizabeth attended the Clivia '98 Conference in Cape Town and suffered a fatal heart attack a few days later.

Our condolences to the families of the deceased.

Meg Hart.

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NEW MEMBERS as at 3 November 1998.

Australia

Darren Harvey, 87 Menangle Road, Picton, NSW 2571, New South Wales
Steve Robertson, 187 Mount View Road, Maleny, Q 4552, Queensland

RSA

Pieter & Kitty Bredenkamp, PO Box 1032, Strand, W Cape.
Ann Cole-Bowen, PO Box 485, Merrivale 3291, KwazuluNatal
Dave & Wilma Coward, PO Box 239, Pennington 4184, (Umzinto), KwazuluNatal
Les & Valerie de Jager, PO Box 37, The Craggs 6602, (Plettenberg Bay), W Cape
Robert & Wendy Drake, 5 Kloof Falls Road, Kloof 3610, (Durban), KwazuluNatal
M du Preez, Angvickweg 54, Valhalla 0185, (Pretoria), Gauteng
Pieter & Ingrid du Toit, Posbus 770, Noorder Paarl 7623, W Cape
Corné & Hans du Toit, Bus 25699, Monumentpark 0105, Gauteng (Woon in Sandton)
Trevor Elliott, PO Box 67203, Bryanston 2021, (Sandton), Gauteng
Ron & Rosemary Forssman, Box 15078, Lynn East 0039, (Pretoria), Gauteng
Hein Grebe, PO Box 16103, Vlaeberg 8018, W Cape
Marge & Roly Green, 12 Cornuta Avenue, Tokai 7945 (Cape Town), W Cape
Fiona & Curt Hermanus, 25 Grand Bahama Close, Capri Village 7975, (Fish Hoek), W Cape
Nick & Ansie Janeke, Posbus 13671, Sinoville 0129, (Pretoria), Gauteng
Els Joubert, Posbus 744, Randburg 2125, Gauteng
Anne Lorentz, 27A 10th Avenue, Parktown North 2193, (Johannesburg), Gauteng
Jan Lubbinge, Posbus 16753, Pretoria-Noord 0116, (Pretoria), Gauteng
Jean & Royden Mages, 38 Ophir Road, Plumstead 7800, (Cape Town), W Cape
Stefan & Anne-Marie Marais, Posbus 891, Alberton 1450, Gauteng
Amy McGibbon, 54 Haygarth Road, Kloof 3610, (Durban), KwazuluNatal
Jayne McNally, PO Box 202, Umlaas Road 3730, (Camperdown), KwazuluNatal
Jaco Nieman, PO Box 9199, Centurion 0046, Gauteng
Jennifer & Keith Norman, 55 Southern Cross Drive, Constantia 7800, (Cape Town), W Cape
Stella & Brett Parish, 58 18th Avenue, Gonubie 5257, E Cape
Trevor & Lyara Phillips, Lammervangerstraat 151, Jan Niemand Park 0186, (Pretoria), Gauteng
Anton Potgieter, Blenheimweg 21, Lynnwood Glen 0081, (Pretoria), Gauteng
Jean & Morell Pretorius, 4 Cockle Crescent, Clovelly 7975, 27, (Fish Hoek), W Cape
Gregory Robinson, PO Box 51585, Raedene 2124, (Johannesburg), Gauteng
Schreiber OM, Fiddlers Green, 38 Soetvlei Avenue, Constantia 7800, (Cape Town), W Cape
Bruce & Margaret Starke, PO Box 485, Kenton-on-Sea 6191, E Cape
Cecilia Steyn, 19 Feldhausen Avenue, Claremont 7708, (Cape Town), W Cape
Colleen & Barry Street, Box 307, Durbanville 7550, (Tygerberg), W Cape
Ronald & Lorraine Teperson, PO Box 2796, Durbanville 7551, (Tygerberg), W Cape
Koos & Charlotte van Dalen, Posbus 990482, Kiblerpark 2053, (Johannesburg), Gauteng
Jaco & Estelle van Tonder, Posbus 826, Hartbeespoort 0216, North West
Dirk & Marie Vermeulen, Rayslot 34, Eversdal, Durbanville 7550, (Tygerberg), W Cape
Jan & Hester Welgemoed, PO Box 628, Paarden Eiland 7520, (Bellville), W Cape
Erica & Albert Wessels, 70 Houghton Drive, Houghton 2198, (Johannesburg), Gauteng

UK

John Burrows, 6 Shingay Lane, Sawston, Cambridge, CB2 4SS, Cambridge

UnitedStatesAmerica

Harold Koopowitz, 14081 Brenan Way, Santa Ana, CA 92705, California

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CHANGE OF ADDRESSES as at 3 November 1998

RSA

Fred & Hilda Gibello, Parasolstraat 8, Wavecrest, Jeffreysbaai 6330, E Cape
Val Thurston, P.O. Box 3181, Westbrook 4400, Natal

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NEW E-MAIL ADDRESSES as at 3 November 1998

RSA

Carole Beckett, KwazuluNatal	beckettc@french.unp.ac.za
Ann Cole-Bowen, KwazuluNatal	annc@za.sappi.com
Nick & Ansie Janeke, Gauteng	njaneke@mweb.co.za
Trevor & Lyara Phillips, Gauteng	phillit@techpta.ac.za
Colleen & Barry Street, W Cape	caefron@netactive.co.za
Jaco & Estelle van Tonder, North West	jacovt@absa.co.za

United States of America

Harold Koopowitz, California	hkoopowi@uci.edu
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FORTHCOMING EVENTS

Sat 30 January 1999	Northern Branch General Meeting
Programme	Discussion - The Clivia Calendar, raffles, tea.
Venue	National Herbarium, Pretoria National Botanical Garden
Time	15:00
Entrance fee	NO ENTRANCE FEE REQUIRED

Sat 4 September 1999	KwaZulu/Natal Branch Show
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Sat 11 September 1999	Northern Branch Show
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FOR SALE

From the Clivia Club:

Advertisements. In future there will be tariffs for advertising in the Clivia Club Newsletter:

Full page:	R200,00
½ page:	R100,00
¼ page:	R50,00
Per line:	R5,00
A4 separate page insert:	R800,00
A5 separate page insert:	R400,00

Copies of back volumes. These are available from the Public Relations Secretary. Each year's back copies will cost R25,00 (US\$15.00 or equivalent).

Membership lists. Full membership lists are available from the club for R25,00 (US\$15 or equivalent).

Seeds. Please remember to send R50,00 (US\$30,00 or equivalent) seed deposit to Koos Geldenhuys if you wish to purchase seed from the Clivia Club. Nakamura seeds (when available) are for South African members only. Special South African seeds will be distributed to both overseas and South African members.

“THE CLIVIA” by V.A. Thurston. R100,00 a copy. Add extra for registered postage: South Africa - R7,80 (signature on delivery); U.K. - R50,00; USA - R50,00 and Australia - R60,00. Payment with order. Allow ± 3 weeks for printing. Cheques to be made out to VA Thurston. **NB New address:** Val Thurston, P.O. Box 3181, Westbrook 4400, South Africa. Tel. (0322) 41316 after 4 pm.

BARK ENTERPRISES. Excellent seedling mix, potting soil and specialised prescription mixes (PRE 02) for sale. STEVE TROLLIP, PO BOX 3622, BRITS 0250, SOUTH AFRICA.
Tel/Fax: +27 (12) 252 7582, Tel: +27 (12) 252 7535, Cell 1: 082 771 8497, Cell 2: 082 789 3730, e-mail: trollip@lantic.co.za

Wide varieties of Clivia in all stages for sale - Belgian Hybrids, Yellows, *C. cyrtanthiflora* and good *C. miniata* cultivars. Nick Primich, P.O. Box 6240, Westgate 1734. Tel/Fax. (011) 768 2996.

Clivia miniata and other pendulous species for sale - mature plants and seedlings available. Contact Connie Abel at 89 Brampton Road, Lynwood Manor 0081. Telephone (012) 361 6406.

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BEGINNERS LUCK

The Mealy bug is an insect which often attacks Clivia. They have oval bodies, are about 6 to 8 mm long and look like small tufts of cotton wool. They are usually found in clusters in the axils or on the underside of Clivia leaves. They feed on Clivia through the leaves and can eventually destroy a plant if left unchecked. They thrive on household and greenhouse plants, particularly when they are in poor condition. Healthy vigorous plants are less likely to be attacked. The insects are encouraged by ants which are attracted by the large amounts of honeydew they secrete. The ants transport the eggs of the mealy bug to new plants, encouraging the spread of the pest.

The mealy bug can be controlled by spraying deep into the axils at the base of the leaves and wherever else they are attacking the plant. Most gardening books recommend a systemic organophosphate spray containing chlorpyrifos. Contact insecticides such as Malasol and Malathion (active ingredient mercaptothion) and Garden Ripcord (active ingredient cypermethrin) also advertise their efficacy in controlling mealy bug.

At the first Clivia Club Conference in 1994, Ron May from Australia published a paper recommending the use of Neem extract, a botanical pesticide from the bark of an evergreen tree, *Azadirachtin indica*. Neem extract is environmentally friendly and is available in Australia but may not be obtainable in South Africa. Another way of controlling mealy bug is to wipe them off or spray them with a 50/50 solution of methylated spirits and water. Keep a spray bottle handy to use in the greenhouse or shade area so that they can be sprayed as soon as they are spotted. Ant control will also help to keep Mealy bug at bay.

Meg Hart

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ON THE COMPOST HEAP

What an exciting time we've been having - to think that people came from all over the world just to see and hear more about Clivia! Little did these people who came from far and wide realise that I was up to my old tricks again trying to bury into the prize specimens on display! I have always wanted to travel and it had crossed my mind that I might spread my nefarious activities overseas by hitching a lift back in a seed of an unsuspecting visitor.

What worries me is all this talk of cold treatment. The weather has been bad enough this summer without

having to be subjected to sub-zero temperatures to get Clivia to flower out of season!

Lily Borer

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