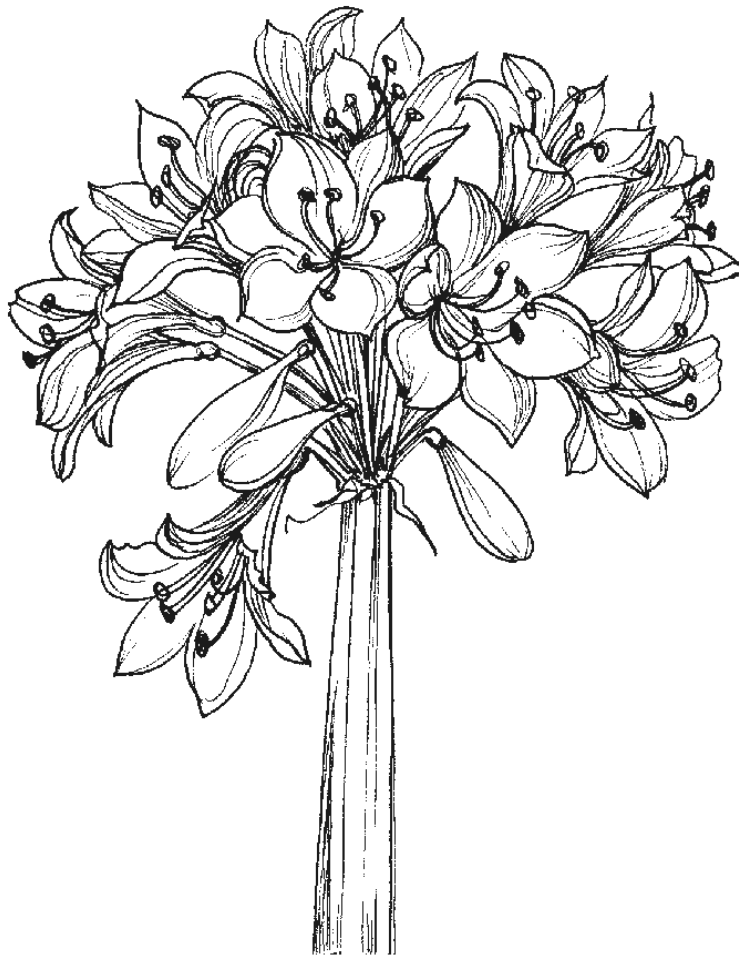


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CLIVIA SOCIETY NEWSLETTER

Clivia Society, PO Box 53219, Kenilworth 7745, South Africa



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CLIVIA CLUB COMMITTEE MEMBERS	Inside back cover

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

This, the first newsletter of the '>Clivia Society' rather than the '>Clivia Club', is an important one as it comes out just before the clivia flowering period when all the growers and enthusiasts are eagerly anticipating the outcomes of their endeavours. Most of the specimens will be seen at the shows around the country and these will serve to further excite interest in the exotic and in the unusual.

Reports and the financial statement presented at the first AGM which was held under the new constitution on 19 May 2001 are included in this newsletter. Tino Ferero reports back on his trip to the Clivia Symposium and visits in California in March this year. There are a variety of letters and articles, both local and foreign, from new and old contributors as well as a scientific article by Craig Honiball. Although there are not a great many private gardens devoted to growing clivias in the country it seems appropriate to devote space in this and forthcoming newsletters to the more spectacular of these. The first that we look at is Margot McNeil's garden at Legalameetse which has a very large collection and provides the ultimate viewing for a clivia enthusiast. This is probably one of the finest clivia gardens in the world, particularly if one excludes those in artificial settings such as shade or greenhouses and looks only at those in a natural environment. Graham Duncan was awarded the International Bulb Society's Herbert Medal for 2001 and it is therefore appropriate that he is appearing as the personality in this issue of the Newsletter.

Some of our members have been ill or have had operations and we wish them well and a quick recovery. Bertie Guillaume and Quentin Jansen were to have had heart bypass operations but these have been postponed and they are managing well at home. Wessel Lötter had a coronary and his heart stopped twice while a stent was being inserted but he recovered, the obstruction was unblocked and he was home and doing well a week later. Mick Dower had a heart valve operation and is recovering well. Please take time off now chaps to watch your clivias growing!

On the highveld an early cold snap in May has caused unexpected flowering. Growers are now harvesting berries from last year's flowering and new clivia enthusiasts should refer to earlier newsletters for detailed explanations and procedures that should be followed in raising new plants from seed. The number of techniques which are followed by the experienced growers are quite numerous. During Winter clivia enthusiasts with hybrids or interspecific crosses enjoyed the flowering of their plants. Some examples of Interspecifics were on display at the Metro Group and Northern Clivia Club meetings in June and July and some excellent examples from all over the world have been seen on the e-mail chat group. On the net discussions, amongst others, have revolved around interspecifics, rot, longevity, how to grow seeds and soil mediums for growing clivia.

This newsletter was started in May but a bereavement in the Editor's family delayed the publication. I thank all Clivia Society members, the Northern Clivia Club, the Metro Group and the Cape Clivia Club for their messages of sympathy and for the flowers which they sent me on the loss of my mother after a short illness. She lived with us on our property for nearly 20 years and was very much part of our lives. As an ex English and Latin teacher she was a great help to me when editing the Newsletter.

Meg Hart

Annual General Meeting

19 May 2001

CHAIRMAN'S REPORT

It is a great achievement to be holding this meeting today - we have finally reached consensus on a new constitution, an achievement indeed considering the diverse personalities within the Club, the differing opinions and the various options possible. It has been a long hard struggle to bring the Club to this point.

At the outset I want to thank Advocate Grobler and the many members who have laboured over the task of bringing in a new Constitution, particularly the coordinating committee who ran the last lap.

In 1992 Nick Primich took the initiative to start the Club. It is fitting today to acknowledge and thank him for his vision, foresight, enthusiasm and efforts. From those early beginnings we stand proudly today at the ten year mark with over 1000 members - members within and beyond our borders - in Australia, Europe, Canada, Japan, New Zealand, Thailand, USA and Zimbabwe. We have a good record of constant growth and it is appropriate that we change our structure accordingly.

I am confident that the new Constitution to be adopted today will benefit all members, streamline the administration and lay a solid foundation for future growth.

AGM's are always an opportunity to thank the members who have worked hard in the interests of all. I particularly want to express appreciation from us all to our Editor who works diligently to regularly produce the newsletter that keeps us informed, inspired and linked together in common pursuit. Meg Hart has loyally and successfully been churning out our newsletter for many years - a very special thanks, Meg, for all your efforts.

I also want to single out Ian Brown whose financial expertise is highly valued - he keeps the books in order and keeps us from spending too much money. Thank you, Ian, for all your support and hard work. We are also grateful to Herbert Farrow, our Honorary Auditor, for the time and expertise that he so generously gives to the Club.

Chris Vlok deserves particular mention for his untiring efforts to publicise the Club. And so too does Mick Dower and Claude Felbert for their work in the compilation of the Yearbook.

And then there are our three international coordinators who provide a service to the Club and members in their country Ken Smith in Australia, Michael Jeans in England and more recently Gerrit Ridgway- Tichelaar in USA. Since the successful symposium held in California we now have 45 members in America.

We look forward with some excitement to the Third International Clivia Conference that will be held in September 2002 in Pietermaritzburg and wish the KwaZulu/Natal Branch success in the planning of this event.

It is through active participation that *Clivia* can be nurtured, admired and developed. I can't think of another genera that has been developed so prolifically over such a short time with such excellent results. But regardless of the developments, we need to remind ourselves of the important fact that *Clivia* is our national

heritage, our responsibility to conserve for future generations.

I have been involved in building up a collection at Kirstenbosch that is representative of the genus *Clivia*. We shall shortly be embarking on a research programme that looks at the DNA of the plants that have been collected in habitat. This hopefully will bring clarity to the origins of many of the *Clivia* in private collections.

In conclusion I want to thank my fellow committee members and Joy Woodward for their support. We send good wishes to all our branches and interest groups and members individually - may we all continue to find pleasure in our Club and its activities and may the next ten years be as fruitful as the last.

John Winter

TREASURER'S REPORT FOR THE YEAR ENDED 31 DECEMBER 2000

The Club met its target of breaking even, showing a small profit of R913 for the year.

The main items in the income statement need explanation:

- § Subscription income has shown a healthy increase to the increased membership and the rise in the value of the dollar subscription paid by overseas members. Sales of promotional material continue to make a significant contribution to our income. The booklet "Hints on Growing Clivia" proved very successful and raised R6 000.
- § The costs of producing and distributing the Newsletter were far higher this year. To some extent this was caused by the increase in membership. The printing costs increased greatly as the quality of the paper and printing was improved and colour covers were introduced. The committee has taken steps to reduce the costs whilst trying to keep a high quality. Overseas postage costs are exorbitant and we hope to contain costs by distributing newsletters in bulk to Australia, UK and USA from where they will be posted to individual members. Electronic transmission may also help solve this problem.
- § In 1999 the Yearbook was produced by the Cape Province Branch who were paid R16 000 which largely covered the net costs. This year the actual printing costs were much the same but postage was far higher. As in 1999 this cost was largely borne by branches. We budgeted a cost of R30 per member, which was slightly exceeded. In 1999 500 copies were sold overseas for a net R13 801. We hoped for similar or increased sales but unfortunately no overseas sales were made. We have a fairly large stock which we hope to dispose of.
- § The general administration costs have been very well contained. Branches now cover more of these and we undoubtedly benefit from the support received from Kirstenbosch. A large increase in administration expenses can be expected as our present arrangements at Kirstenbosch are not expected to continue. In future it seems likely that we will have to make some payment to the Secretary. I would pay tribute to our Secretary, Joy Woodward, for the enormous effort she has put into the Club's administration.
- § A grant of R2 000 was paid to assist a student doing post-graduate research into various aspects of growing clivias. The results of the research will appear in the yearbook.

The figures in the Balance Sheet don't require further comment.

In general the Club is in a healthy financial position. We must aim at increasing our membership as this will spread our costs and enable us to keep subscriptions at a level which will attract further members.

Ian Brown

CLIVIA CLUB - FINANCIAL STATEMENTS - 31 DECEMBER 2000

CONTENTS

- \$ Committee's approval of financial statements.
- \$ Report of the honorary independent auditor
- \$ Income statement
- \$ Balance sheet
- \$ Notes to the financial statements

COMMITTEE'S APPROVAL OF FINANCIAL STATEMENTS

The financial statements set out on pages 2 to 4 have been approved by the committee and are signed on their behalf by:

JOHN WINTER Chairman
IAN BROWN Hon. Treasurer

REPORT OF THE HONORARY INDEPENDENT AUDITOR TO THE MEMBERS OF THE CLIVIA CLUB

I have audited the annual financial statements of the Clivia Club set out on pages 2 to 4. These financial statements are the responsibility of the committee. My responsibility is to express an opinion on these financial statements based on my audit.

Scope

I conducted my audit in accordance with statements of South African Auditing Standards. These standards require that I plan and perform the audit to obtain reasonable assurance that the financial statements are free of material misstatement.

An audit includes:

- \$ examining, on a test basis, evidence supporting the amount and disclosures in the financial statements;
- \$ assessing the accounting principles used and significant estimates made by management,
- \$ and evaluating the overall financial statement presentation.

I consider that my audit provides a reasonable basis for my opinion.

Qualification

In common with similar organisations, it is not feasible for the Club to institute adequate accounting controls over income other than investment income. Accordingly it was impracticable for me to extend my examination beyond the receipts actually recorded in these instances.

Qualified audit opinion

In my opinion, except for the effect on the financial statements of the matter referred to in the preceding

paragraph, the financial statements fairly present, in all material respect, the financial position of the Club at 31 December 2000 and the results of its operations for the year then ended in accordance with Generally Accepted Accounting Practice.

CAPE TOWN
H. A. FARROW
11 April 2001
CHARTERED ACCOUNTANT (SA)

CLIVIA CLUB - INCOME STATEMENT FOR THE YEAR ENDED 31 DECEMBER 2000

	2000	1999
	R	R
INCOME		
Subscriptions	72 426	52 615
Sale of promotional material	7 532	5 801
Sale of seeds, less purchases	--	12 420
Donations	500	1 648
Interest	5 345	4 453
	85 803	76 937
LESS EXPENSES		
Advertising	669	1 000
Bank charges	6	855
Depreciation	---	3 633
Entertainment, gifts & meeting expenses	1 488	1 213
Grant for research	2 000	---
Newsletters, including postage	40 673	16 529
Postage	2 305	3 670
Secretarial expenses	1 000	---
Stationery	1 673	5 437
Telephone	1 286	4 643
Yearbook, including postage	45 628	16 000
Less: sales	<u>11 838</u>	(C)
	84 890	52 980
NET INCOME FOR THE YEAR	913	23 957
RETAINED INCOME AT BEGINNING OF YEAR	44 631	20 674
RETAINED INCOME AT END OF YEAR	45 544	44 631

CLIVIA CLUB --- BALANCE SHEET FOR THE YEAR ENDED 31 DECEMBER 2000

	Note	2000	1999
Capital Employed		R	R
RETAINED INCOME			
Employment of Capital		45 544	44 631
FIXED ASSETS	2	3	3
CURRENT ASSETS			
Cash at bank and on deposit		54 500	54 203
Branches		1 644	---
Debtors		465	290
		56 609	54 493
LESS: CURRENT LIABILITIES			
Branches		1 633	600
Creditors		2 705	750
Subscriptions received in advance		6 730	8 515
		11 068	9 865
NET CURRENT ASSETS		45 541	44 628
		<u>45 544</u>	<u>44 631</u>

CLIVIA CLUB - NOTES TO THE FINANCIAL STATEMENTS 31 DECEMBER 2000

ACCOUNTING POLICIES

The financial statements are prepared on the historical cost basis and incorporate the following principal accounting policies which are consistent with those applied in the previous year:

- 1.1 Subscriptions - Subscriptions are brought to account in the year to which they refer.
- 1.2 Stocks - No account is taken of stocks on hand at the year end in respect of promotional material.
- 1.3 Fixed Assets
Fixed assets are depreciated on a straight line basis at rates estimated to write down each asset to estimated residual value over the term of its useful life. The following rate applies: Computer equipment and fax - 3 years.
2. **FIXED ASSETS**

	2000	1999
	R	R
Cost	12 599	12 599
Accumulated depreciation	12 596	12 596
Net book value	<u>3</u>	<u>3</u>

EDITOR'S REPORT

Little can be added to the last Editor's report but in general the following encapsulates the activities of the Editor:

The Clivia Club Newsletter is a quarterly publication which contains articles and contributions from

individuals and groups who are interested in clivia cultivation. Contributions are received from all parts of the world with the views of growers in many different climatic regimes. Since its inception in 1992 personalities have emerged who have made valuable contributions to the newsletter and as a general rule the editor profiles one of these in each publication. It also deals with clivia events, shows and exhibitions and provides a forum for discussion and for advertisements for those wishing to buy and sell plants and seed.

The editor would like to take this opportunity to comment on the highly fragmented nature of the Clivia community especially those living in South Africa. We now have branches and interest groups in all parts of the country who meet regularly, we have e-mail groups that talk to each other through the Internet and web sites which show examples of clivia specimens. Of interest to the editor is the fact that little attempt is made to coordinate and publish material from these groups which would be of interest to other members of the clivia growing community.

An editorial committee has been mooted and the editor is of the opinion that this will strengthen the newsletter as it will provide input from a number of different enthusiasts. Perhaps there is a case to be made for centralising information. The obvious vehicle is the Newsletter. How this is done would be one of the tasks which the proposed editorial committee could address. In this way we would depart from our present practice which is to concentrate on contributions from a small group of individuals and we would broaden the base of contributors. Even if the articles that come from a wider spectrum are brief and highly specific, they would still be a useful contribution.

Meg Hart

From the Committee

A WORD FROM THE CHAIRMAN

The AGM held in Pretoria on 19 May 2001 was an historic meeting. The new constitution was adopted and the name of the "Clivia Club" was changed to the "Clivia Society" and branches will in future be called Clivia Clubs. We are very grateful for the generous support of Advocate Grobler and the hard working team who finally brought the constitution to finality. A new committee was elected (see inside back cover).

We are very pleased to welcome 22 new members from USA who joined the Society at the Clivia Symposium that was held in California in March. We are delighted that Gerrit Ridgeway-Tichelaar has agreed to coordinate Club affairs in America.

The Newsletter has taken on a new look again - congratulations to Meg & Chris. The Yearbook is in the pipeline and planning is under way for the Third International Clivia Conference that will take place in Pietermaritzburg in 2002.

Once again we have been privileged by the kind generosity of Mr Yoshikazu Nakamura who donated seed. All members were given a fair opportunity to obtain this seed.

On 5 May 2001 The International Bulb Society awarded the prestigious Herbert Medal for 2001 to Graham Duncan. It was presented to him by The International Bulb Society at their Annual Spring Bulb Conference and Board Meeting held at the Chicago Botanic Gardens. Graham was chosen as the 2001 recipient of this award in recognition for his "horticultural and published work with indigenous South African bulbous plants over the past 21 years". Our congratulations to Graham on this noteworthy and wonderful achievement. Well done!

We are an active and happy Society going about our business brought about by our love and enthusiasm for the magnificent Clivia. Long may it be so.

John Winter

CLIVIA SYMPOSIUM IN CALIFORNIA

The Second Clivia Symposium in the USA, arranged by Harold Koopowitz, was sponsored by the world famous Huntington Botanical Gardens, where the delegates were warmly welcomed by the Director, Jim Folsom.

At the first symposium four years ago, less than ten delegates attended. To Harold's surprise, more than 60 delegates attended this symposium held on 10 and 11 March 2001, including some of the major Clivia growers in California such as Joe Salomone, Dave Conway, James Comstock and many others.

The delegates were treated to a wonderful 3-D presentation on clivias and other flowers by James Comstock, and talks, video and slide presentations were done by Harold Koopowitz (Biology of Colours in Clivia and more), Shige Sasaki (on behalf of Mr Nakamura), Jim Waddick (Clivias in China) and David Conway (Variation in Colours of American Clivia). My presentation of 80 slides was on South African Clivias and Clivia Hybrids/Hybridizers. Joe Salomone brought some magnificent plants to display during the two days. His variegated oranges and yellows were absolutely magnificent.

South African members of the Clivia Society, all from the Northern Branch, were well represented. James and Connie Abel manned the information table and enrolled about 22 new members. Elda de Witt joined us from Canada. Marieta and I and Henriëtte Stroh and Judy van der Walt made up the rest of the South African contingent. The latter five of us were graciously hosted for a full week by Karen Muir in her beautiful home in Laguna Niguel.

Before the symposium Harold and Karen took us to visit several large and wonderful garden centres and nurseries where clivias were offered for sale. Most were the ordinary wild type oranges selling at \$25. Yellows were scarce and those that had them were offering them at \$100 plus depending on size. A few good quality variegated were available at \$100 each. Judy bought a rather nice one with two suckers, one of which went to Henriëtte and the other to Harold.

We were very impressed with the clivia collection of James Comstock. He has been hybridizing them for 16 years and for a long time thought he was the only person doing this. His multipetals with very large flowers and peach lines and others are of exceptional beauty and quality. At Harold's place we saw the famous "Flame" and some others with large umbels and very good florets.

Harold also took us to visit the world famous collection of Dave Conway and there we were treated to a show of clivias of exceptional colour and beauty. Elda managed to buy a brick red sucker for \$60. We also had the pleasure of visiting Dr Glynne Couvillion's beautifully landscaped garden full of palms, exotic plants and clivias. He allowed us to collect seed and these were accepted with enthusiasm. His collection comes, amongst others, from Dave Conway and Joe Salomone.

California and its Clivia Growers have made a lasting impression on us. From the clivias growing in the Huntington Gardens to the top quality clivias viewed in the private collections, it was evident to us that much has been done to improve and enhance the beauty and quality of these wonderful plants. I grabbed the opportunity of arranging with some of these growers to swap top quality seeds with them. The introduction of

their top lines can go a long way to enhance our own clivias. On the other hand, I think that top South African growers also have much to offer them, especially when it comes to large shape and size of umbels and florets. This was very evident from the slides shown at the Symposium.

The Symposium will most likely eventually lead to the creation of an American Clivia Society. If that happens, we have a firm undertaking from both sides of a close ongoing liaison and co-operation. This can only be to the advantage of the future further enhancement of this beautiful plant we all have come to love and enjoy.

Tino Ferero

Correspondence

A PRIZE FOR THE MOST INTERESTING ARTICLE

Hi Meg,

Have a proposal for you to think about & give me your views.

Competition: For the most interesting article in the news letter for the year.

Participants: All club members.

Judges: All club members.

Judging: The article that receives the most responses given by club members.

Prizes: Still tossing this one around in my head.

Thinking, for Oz & SA winners an offset from my best yellow named this season "Golden Sunlight" &/or for others 10 seed from my variegated yellow "My Pleasure" named in love & respect for James Abel.

Keep smiling,

Pen Henry

120 Caporn Str., Wanneroo, Western Australia. cliviagardens@optusnet.com.au

18 November 2000

*An excellent idea, Pen. We'll try to implement this in the last newsletter of the year.
Editor.*

ORANGE AND YELLOW CLIVIA BREEDING

In a recent e-mail (1.1.01) to the clivia enthusiast group Nick Primich made the following statement: "As you know it is usual for the oranges to take on a paler colour after a crossing with a yellow". This was in regard to his cross of a wild collected orange, (>Wild type 1') with >Aurea' where the majority of the seedlings with dark bases flowered with "medium orange" flowers, the same colour as the >wild type 1' parent.

Like Nick I have crossed "improved" oranges with yellows and found the off-spring were paler than the orange parent. However, crossing yellow with wild type oranges, or with less "improved" orange types is seldom done, as the best oranges (meaning more intense colour) are usually used.

However, I , on one occasion crossed a less orange plant (perhaps could be called "ordinary orange" or "medium orange") with a good yellow, to try to get even paler offspring and I was surprised to find that the offspring were no paler than the orange parent. To my eye they were the same, instead of paler, as Nick found using his >Wild type 1'.

It is easy for us to think of mixing paint where orange plus yellow gives a paler orange. However, that doesn't happen in clivias.

Many growers have crossed pastels with yellows hoping to obtain more or paler pastels. Generally, they have been disappointed, as most of this offspring "revert" to orange.

A summary is as follows:

- (a) Improved orange and yellow, generally paler (ordinary or medium orange).
- (b) Ordinary or medium orange x yellow, no change (ordinary or medium orange).
- (c) Pastel oranges x yellow, generally darker (ordinary or medium orange).
- (d) Yellow, Group 1 x Yellow Group 2, orange (ordinary or medium orange).

The explanation is as follows.

Yellows originally arose as mutations of Wild type oranges which normally are ordinary or "medium orange". Improved yellows are bred mainly for "Improved" shape and other characteristics including colour, but deeper yellow has been rarely achieved, although lighter yellow does occur. However, the yellow plants still carry the Wild type orange genes except for the single mutated gene that caused the yellow background colour to appear (orange is a mixture of red anthocyanin and yellow carotenoid pigments).

Because of this the earlier four crosses can be rewritten as follows (ignoring the yellow pigment and dealing only with orange). The orange parent supplies a functional gene to replace the yellow's mutated one so the offspring are orange.

- (a) Improved orange and Wild type orange, (medium orange)
- (b) Medium orange x Wild type orange, no change (medium orange)
- (c) Pastel x Wild type orange, darker (medium orange)
- (d) Wild type orange x Wild type orange, ordinary orange (medium orange).

So when breeding oranges (all types) with other coloured miniatas, the genetic back ground of the others must always be taken into account. Peach (Group 1) will behave the same as yellows. It is a mutation of a Wild type orange and contains normal, Wild type orange genes except for the mutated gene, so in a cross with an orange of any kind it will breed as a Wild type orange.

Bill Morris
PO Box 17, Medowie, NSW 2318, Australia
4 January 2001

Bill suggests that a yellow crossed with an orange, will produce orange, not a paler colour. Nick Primich says yellows crossed with SOME oranges may produce a paler specimen. Editor.

A comment: Nick Primich (edited). Bill and I follow different approaches to breeding clivias. Bill puts plants

into categories. I prefer to regard plants as individuals. I find even siblings from line breeding give diverse results. I record all my crosses and identify all my breeding plants. In my opinion, there isn't ONE >Wild Type', but MANY. I have tried a few crosses with very different results to my >Wild Type 1'. (In my early efforts I came across an interesting >Wild Type'. Initially I was unaware of what was happening with this plant's crosses. I realised that result with this >Wild Type' did not fit with previous results. Bill talks of >partial domination' (for paler oranges when crossed with yellow). I don't agree, and believe that in the course of time, he may change his mind. Nick Primich.

E-MAIL ADDRESSES

Hi Meg

Here is a comment from one of our newest members, our only member in Canada (except for Elda de Witt). He originally sent me an e-mail and because he mentioned finding Clivia at a nursery in the UK, I referred him to Michael Jeans, and then discovered that he lived in Canada!

Unless the e-mail address has the country in the end of the address (eg. za=South Africa, au=Australia, nz=New Zealand, etc.) it is not possible to know where the person is calling from! Anyway it worked out well because he travels to UK every year and still had English money and has made a good contact in Michael Jeans.

In the light of his comment, "I wonder whether any members have experienced this problem and can give a name to it?" I thought you might like to publish this letter.

Hope you are keeping well

Kind regards
Joy Woodward
15 March 2001

Thanks for bringing this to our attention, Joy. This is a universal problem, especially with the .com e-mails and the answer is for e-mailers to provide their addresses beneath their messages as they are asked to do on the clivia-enthusiast chat group. Editor.

CLIVIA DISEASE

Hi, Joy, first, many thanks for the booklets you sent. They continue to be an inspiration. Mike Jeans was kind enough to offer some thoughts on a problem I have, and he went on to suggest I contact you in case you think the matter is worth bringing to the attention of Clivia members. I have now had to destroy several mature Clivia plants because they developed a disease in their hearts. Instead of fresh, clean leaves emerging from the centre of the plant as is normal, some revealed lighter green leaves with streaky marks and brown edges. One actually started to show a flower head, but it was deformed and puny, never maturing properly. I wonder whether any members have experienced this problem and can give a name to it? As well, I wonder whether anyone can offer a cure other than the drastic method I currently use?

An incidental ... we are presently experiencing a gigantic snowstorm that has enveloped the whole of the eastern US and parts of southern Canada. They figure some will get 60 in. and we are promised at least 20. No matter where one lives, there are always hazards to endure. So imagine for a moment our blizzard conditions

and its COOL JOY.

Regards,
Colin McLaren
cmclaren@home.com
6 March 2001

I hope one of our members will be able to advise you about your clivia problem. Editor.

IMPORTATION OF CLIVIA PLANTS TO AUSTRALIA

Dear Meg,

Frances and I recently moved to Auckland from Everton, Natal, in order to be closer to our family (grandchildren) here and in Australia. Quite a wrench after happily serving on the Natal Committee for a few years and I really miss my clivia friends. Thank goodness for the internet which makes maintaining contact so easy.

Of course, while I could leave behind family and friends, I couldn't forsake my clivia collection, and decided to take as many plants as possible with me. I started my love affair with clivia when I retired in the early 90's and this grew into a sort of commercial hobby, which was starting to provide a little pocket money on the side. I felt this might be useful in New Zealand where rands and cents don't go as far as they do in South Africa. Other members find our experiences in exporting the plants of interest.

Our departure was timed for the end of September (obviously, we couldn't miss the Clivia Shows) and I outline the steps we followed:

§ **Import Permit:** Information is freely available from the Ministry of Agriculture and Forestry (MAF), New Zealand, through the internet (www.MAF.govt.nz), in terms of which I applied for an import permit on a standard application form, which called for specific details of the plants to be imported and the name of the arranged registered quarantine facility. The permit was granted without hassles as the import of seed and plants of three species of clivia is freely allowable subject to certain conditions. For some reason this excludes caulescens, and as it would be a major exercise to clear an unlisted species, I waved a magic wand and my Caulescens were transformed into Gardenii.

The permit then stipulated the conditions under which the plants could be imported. Clean out of ground and subject to a phytosanitary certificate certifying spraying/dipping in an approved insecticide and a 30 minute root dipping in fenamiphos, a fungicide, at a specified dosage. Cost NZ\$80 = R280.

§ **Phytosanitary Certificate:** This was provided by the National Department of Agriculture - Plant Production, Health & Quality Control, who also approve the export. Their Durban Office is situated in Point Road and they were very helpful. For a fee of only R70 they agreed to inspect the plants for compliance on my premises.

§ **Cleaning and Packing:** This is where the problems began. As airfreight appeared exorbitantly expensive, I decided to ship the plants in cardboard cartons, courtesy of the local supermarket, as accompanying baggage, a big, big sacrifice on Frances' part as her suitcases of clothing had to go in the container with our other possessions, but it was necessary to get the priorities right.

The first difficulty was in sourcing the stipulated insecticides and fenamiphos, which are available in South Africa only in agricultural quantities, costing in R1000's. Thanks to the help of club members, Andy Forbes-Hardinge and Nick & June Smith, we were able to overcome this hurdle.

We were packing up our home two days prior to our departure and allowed two preceding days to clean and pack the plants. How clean did they have to be? I had heard stories of cycad exporters scrubbing plants with toothbrushes and seen a Cape grower scrubbing clivia roots with scrubbing brushes, and thought I had to do the same. Big mistake. This was overkill, and nearly killed Frances & I in the process, suffering severe back strain from the bending over while scrubbing. We certainly had no problems with the certification process, but I am sure we could have got away with a lot less scrubbing, which damaged the roots particularly of younger plants. We subsequently lost about 15% of the 1 & 2 year old plants during the quarantine process, as a direct result of our zealous scrubbing, I'm sure. They just curled up and died. Fortunately no mature plants were lost.

Altogether we cleaned some 600 plants, including about 30 mature parent plants, amongst them natural clones like Howick, Eshowe, Transkei, Natal Yellow, Chubb's Peach, etc., for future breeding. The younger plants included seedlings from many of the better known growers in South Africa and of all species and varieties. We were amazed that after cleaning and drying, the plants were accommodated in only two "banana box" size cartons, which we bound carefully and clearly marked "fragile". The airline, which shall remain nameless, then proceeded to play football with them some where along the way, but they arrived more or less intact in Auckland.

§ **Customs/Quarantining:** On arrival in Auckland the plants were carted off by the MAF officials at the airport for inspection and delivery to the quarantine facility, which eased our passage through customs as they were so concerned with the plants that they clean forgot about any other contraband we may have been carrying. The inspection process took two days and this is where our sore backs paid off, as the plants were cleared without difficulty, except that they confiscated and destroyed the packaging material. (We had used cartons bearing an egg producer's label). Quarantining took five months, rather than the three we had anticipated. The people were very helpful and the resident horticulturist helped me pot up the plants. Wherever possible I used palm pots, very deep but with a diameter of only 10cms, in order to save space. I negotiated a fee of NZ\$50 plus 12.5% GST per m² (Usually NZ\$80 per m²), and managed to restrict the area used to only 8 m², so the eventual cost was about NZ\$1900 = R6650, more than I had originally anticipated, but this included the cost of growing media and plant feeding during their stay. This must make my plants the most expensive in New Zealand, but I'm so glad to have them.

Big mistake: At the last minute I decided to take some Scadoxus bulbs, which showed insufficient growth for the MAF inspector and had to be destroyed to facilitate release of the clivia. The moral is:- "Don't complicate an already complicated procedure".

I must say that the authorities on both sides, the MAF inspector and the quarantine people were all extremely helpful.

Now three months later my plants are thriving in their new shadehouse. Its rainy and cold, but they don't seem to mind. An interesting observation is that plants grown here seem to be faster than back in SA. For the past two years I have had some plants here in New Zealand, grown from seed, and comparing them with their sisters grown in South Africa and brought across, I would say that the locally grown plants are about a year in advance in their growth. A Gardenii plant sown in September 1998 in a bulk seed tray and now only 2 years old, is flowering only a few months after being potted up for the first time.

All this has kept me extremely busy since arrival, but now I look forward to making contact with some of the members here in New Zealand. You'll be hearing from me.

Kind regards,

Alick McLeman

P.O. Box 25846, St Heliers, Auckland, New Zealand - email: clivia@xtra.co.nz

30 May 2001

Well, we certainly wish you lots of luck in New Zealand especially after all the effort and expense you went to in exporting your precious clivia. As Nick Primich says, MAYCAT. Editor.

CLIVIA GARDENS - THE GARDEN OF MARGOT McNEIL

Margot McNeil lives on a farm to the west of Trichardtsdal in the central Lowveld. It is at the base of the northern Drakensberg. Her home is uniquely situated with the escarpment rising precipitously for some hundreds of feet behind the farmstead which is part of the Legalameetse Nature Reserve. This is the Pedi word meaning '>water and ashes'. It describes the hot dry Lowveld on the one hand and the moist temperate grasslands of the Highveld on the other. Water is abundant on Margot's farm, with the confluence of a number of perennial streams in her garden. The hillsides are steep, and are clothed in large indigenous trees, which provide dappled shade for the clivias which she and her late husband planted.

As described in a previous Newsletter (Vol. 4, No. 1, January 1995, page 1), clivias came to this area from the Gladys Blackbeard collection in Grahamstown when Gordon McNeil, Margot's late husband, acquired hundreds of *Clivia miniata* and trucked them from the Eastern Cape to his farm at Cyprus. He set about terracing the hillsides above the house where small rock fragments are abundant and planted out acres of clivia beneath the large indigenous trees. Gordon passed away some years ago and Margot has extended his work and embarked upon a careful breeding programme which has produced some remarkable cultivars. Not only do clivias still flower in profusion on the terraces, but Margot has developed a beautifully landscaped clivia garden in a more natural setting in the valley below the terraces. These are well worth seeing and a visit to Legalameetse is a most rewarding experience for the enthusiast. There will also be plants for sale.

The gardens will be open from August 15 (depending on the weather) which may delay or advance the flowering season and intending visitors must give Margot a ring to make a visit. Tel/Fax (015) 383 2016, Cell 083 631 4640 or at Cyprus in the mountains at (0152302) and ask for 1541. All visits are by appointment only as the gatekeeper of the reserve must be informed in advance and only small groups can be taken through the property at a time. The road leading to the house is rather rough and vehicles with good clearance or 4 x 4's are appropriate to gain access.

There is no longer accommodation in the log cabins in the Nature Reserve as these are in a state of disrepair. The closest accommodation in the area is at Camp David situated off the main road from Tzaneen to Nelspruit. Here are found permanent tents accommodating 2 people each in a river setting with lots of bird life, walks and amenities. Camp David is also a fully functioning dairy farm and is inexpensive. The owners are David and Yvonne Drewett. Telephone: Dial Trichardtsdal 0152302 and ask for 2704 or dial direct (015) 383 0050 for further details.

People planning to visit Margot's clivias at Legalametse could well embrace much of the beauty of the north-eastern region at the same time. For example Cheerio Farm at Haenertsburg is a riot of colour in late September and early October with one of the best Azalea and Cherry blossom displays in the country. Nearby in the indigenous forests of the Magoebaskloof area *Clivia caulescens* abound which flower later in October and November. Not far away at Tzaneen are some well known Azalea and general nurseries, while the subtropical vegetation below the escarpment in the Tzaneen area is worth a visit, especially if the Spring rains make an early appearance. The Modjadji Nature Reserve, home of the celebrated Rain Queen is not far away. The area is dotted with caravan parks and camping grounds, B & B's and selfcatering cottages, and some of the country's best hotels like the Magoebaskloof Hotel and the Coach House with its lovely views into the Letsitele Valley. It goes without saying that a day or two in the Kruger National Park would not be out of place.

Meg Hart

PROMOTION OF SHOOT FORMATION IN *CLIVIA MINIATA* REGEL WITH PACLOBUTRAZOL AND PROMALIN™

This article is a summary of work conducted by Craig Honiball at the University of Pretoria (Honiball, 2000).

The author would like to acknowledge the contribution of Bertie & Ansie le Roux of Levubu who first suggested the use of Paclobutrazol in *Clivia*.

Abbreviations

a.i.	active ingredient
BA	Benzyladenine
GA4	Gibberellin No.4
GA7	Gibberellin No.7
PAC	Paclobutrazol
PRO	Promalin™
ppm	parts per million

INTRODUCTION

Clivia miniata can be vegetatively propagated by division of suckers. The rate at which suckers are produced varies from clone to clone and is often not satisfactory. Published tissue culture methods are still imperfect, resulting in varying degrees of success (Finnie, 1998, Chapman, 1999). In addition, tissue culture facilities are not available to many amateur growers who are in possession of desirable clones. This investigation was undertaken to determine whether the plant growth regulators Paclobutrazol and Promalin™ could be used as a foliar spray to promote shoot formation and branching in *Clivia*.

PAC has been used in tissue culture of plants to stimulate shoot formation. When applied to *Clivia* to reduce plant size, it had the same effect (Van Huylenbroeck, 1998). However, in the latter work, a wide range of concentrations was not tested and the yield of shoots was relatively low.

BA can also be used to stimulate shoot formation in a number of plants. PRO, which contains BA, (GA4 + GA7 + BA; 19g / l a.i) is registered in South Africa for the promotion of branching in apples.

EXPERIMENTAL PROCEDURE

2.1 PAC

PAC (Cultar™; 250g / 1 a.i.) was applied to flowering size plants as a foliar spray until runoff, at concentrations of 1, 2, 4, 10, 20, 50 and 100ml/l Cultar™, corresponding respectively to 250, 500, 1 000, 2 500, 5 000, 12 500 and 25 000 ppm a.i. The number of shoots formed was then recorded.

2.2 PRO

In a second set of flowering size plants, a foliar spray of PRO until runoff was applied. Concentrations of 5.3, 10.4 and 26.3 ml/l PRO were used (corresponding respectively to 100, 200 & 500 ppm a.i.). Ten applications were made; one application every second day, for 20 days.

After observation of the effects of the first PRO application, PRO was applied to a third set of plants at a much higher concentration. Seedlings at the six leaf stage were used and PRO at 375ml/l PRO (7 125 ppm a.i.) was applied. The solution was painted onto the crown and leaf axils of each plant with a paint brush, wetting the areas until runoff. Two application regimes were used; a single application per plant and three applications per plant. In the case of three applications, one application was given fortnightly, for six weeks.

NB. In preparing the above concentrations, 1, 2, 4 etc. ml / l denotes 1, 2, 4 etc. ml of Promalin™ or Cultar™ diluted with water, to a final volume of 1 litre and not 1, 2, 4 etc. ml plus 1 litre water.

RESULTS

3.1 PAC

Ten months after the application of a 2 500 ppm PAC foliar spray, a clearly visible reduction in plant height could be seen. This was accompanied by branching in the axils of older leaves which was especially prolific at higher concentrations. However, at and above concentrations of 5 000 ppm PAC, complete and near complete disintegration of the parent plant and much of the root system occurred in some individuals. It follows that although branching seemed more prolific at the higher concentrations, the viability and probability of survival of shoots on plants compromised to this extent would be much reduced. PAC is a plant growth inhibitor which inhibits the synthesis of gibberellic acid, a natural plant hormone. This effect could be seen in shoots produced after treatment with PAC since they were abnormally compact (stunted) and slow growing. If PAC is used, it is recommended that a single dose of 10ml/l Cultar™ should not be exceeded. Even at this concentration, expect that plants will experience a reduction in height of about 50% and that flowering will be sacrificed for 2 - 3 years.

Table 1 shows the mean number of shoots produced at various PAC concentrations, seven months after application.

Table 1. Mean number of shoots as a function of Paclobutrazol (PAC) concentration (ml/l Cultar™), seven months after application.

ml/l Cultar™	0	1	2	4	10	20	50	100
Mean number of shoots	1	2.3	3.3	3.5	7.1	6.5	6.5	6.1

The effect of PAC on flowering was negative because of death of the growing point, which is the source of new inflorescences. Furthermore, existing inflorescences disintegrated completely at concentrations of 5 000 ppm and higher and where this did not occur, peduncles were unacceptably short.

3.2 PRO

The result of PRO application could be seen in branching of treated plants from the axils of younger leaves around the growing point. Shoots formed in this way were different in morphology to those formed by PAC in the sense that leaf size and shape were normal when PRO was used. One year following the 10 applications of PRO at 0, 100, 200 and 500 ppm a.i., the percentage of treated plants which grew into 2 or 3 potentially new individuals was 0%, 25%, 50% and 50% respectively. However, these results could not be statistically analysed and will need to be verified. The most significant benefit which arose from the use of PRO was that there was no inhibition of vegetative growth or destruction of the parent plant. However, when using PRO, flowering was also negatively affected and deformed flowers could be observed following applications at 100, 200, 300 or 7 125 ppm a.i. The negative effect on flowering was attributable to deformation of existing flowers and possible interference with progression of the apical meristem, in mature plants, from the vegetative to the reproductive phase.

At the high PRO concentrations applied to seedlings, (7 125 ppm a.i.) branching occurred after either one or three applications but at the time of publication this had only progressed far enough to be detected microscopically. It is therefore not possible at this stage to quantify these results or to say whether three applications were more beneficial than a single application.

An estimate of the cost of treatment with PAC is based on a price of R480.00 / l for Cultar™. Assume that 10ml of the product is made up to 1 litre with water (2 500 ppm a.i.) and that a volume of 10-20ml of this solution is applied per plant as a foliar spray. The cost per application, per plant is therefore R0.05 - R0.10. A price of R1 018.00 / l for Promalin™ is assumed. Assume that 375 ml of the product is made up to 1 litre with water (7 125 ppm a.i.) and that a volume of 5 -10 ml of this solution is applied per plant with a paint brush. The cost per plant, per application is therefore R2.03 - R4.05.

CONCLUSIONS AND RECOMMENDATIONS

From this investigation it is concluded that PRO and PAC can be used to increase shoot production in *Clivia* when applied to foliage but that the action of these two agents seemed to differ. PAC stimulated formation of buds in the axils of older leaves while PRO stimulated branching in the axils of younger leaves near the growing point. Vegetative growth inhibition caused by PAC was unacceptable at and above concentrations of 5 000 ppm while PRO had no such effect at all concentrations which were tested.

Further work should be carried out to optimise the use of these substances both in terms of yield and cost. A comparison should be made between the use of a large number of PRO applications at low concentration (approximately 10 applications at 500 - 1 000 ppm a.i.) and a small number of applications at high concentration (approximately 1-3 applications at 5 000 - 7 000 ppm a.i.). It should furthermore be determined at which intervals PRO can be reapplied in order to stimulate successive cycles of branching. The possibility of combining the two agents, for example in a low dose of PAC followed some months later by a high dose of PRO, should be investigated.

PRO is distributed in South Africa by Abbott Laboratories SA (Pty) Ltd, Cape Town and Cultar™ by Zeneca Agrochemicals SA (Pty) Ltd, Johannesburg. Neither of these firms deal directly with the public but they will provide details of their agents. Finally, neither Cultar™ nor Promalin™ are registered for use in *Clivia* and their application must be regarded as experimental. In general, plant growth regulators are notorious for causing different reactions under different circumstances and in different cultivars. Before experimenting on your treasured plants it is advised that an exploratory trial under your own conditions be done first. In addition, always follow instructions on the bottle for storage and avoid storage of products once diluted. Read

the package insert carefully and keep these substances out of reach of children and uninformed people.

REFERENCES

CHAPMAN, A.C., 1999. *In vitro propagation of Clivia miniata*. BScAgric(Hons) dissertation. Department of Horticulture, University of Nottingham, England.

FINNIE, J.F., 1998. *In vitro culture of Clivia miniata*. In C.Felbert, J. Winter & M. Dower (eds). *Clivia yearbook 1998*. Clivia Club, Kirstenbosch Botanical Gardens, South Africa. 7-10.

HONIBALL, C.B., 2000. Manipulation of flowering period and shoot multiplication in *Clivia miniata* Regel, chapter 4. MSc(Agric) dissertation. Department of plant production and soil science, University of Pretoria, South Africa.

Personality parade

Graham Duncan



Graham Duncan grew up amongst the floral wealth of the Western Cape coastal town of Saldanha, where his interest in indigenous bulbs in general, and the genus *Lachenalia* in particular, began. He went to high school at SACS in Cape Town, where he matriculated, and grew indigenous bulbs in a small collapsible wooden greenhouse, and exhibited them at the various wildflower shows held at Kirstenbosch. In 1979 he enrolled at the Cape Technikon for the National Diploma in Horticulture, which he followed on a part-time basis, and at the same time joined the staff at Kirstenbosch as an unpaid trainee-horticulturist. He experienced some difficulty in obtaining this position at Kirstenbosch, as in those days there were no positions available for trainee-horticulturists. However the then Curator of Kirstenbosch, John Winter, and Dick Geary-Cooke of the Botanical Society, were instrumental in getting him the position through pulling strings. Several months later a nursery horticultural post was advertised at Kirstenbosch, specializing in bulbous plants, which he applied for even though he was not yet qualified, and was fortunate enough to be appointed. His first salary cheque (before deductions) amounted to the princely sum of R151,50!

Graham remained committed to the cultivation, propagation and dissemination of information on South African indigenous bulbs, and curates the large living collection of more than 500 species maintained mainly in the nursery at Kirstenbosch, which includes many rare and endangered species. Most of the bulbous species cannot be grown on a longterm basis in the garden itself due to the excessively high winter rainfall, the poorly-drained soil and because the garden is irrigated during the summer dormant period of the winter-growing bulbous species. Further, the depredations of molerats and porcupines, and to a lesser extent, long fingers and guinea-fowl, make cultivation of the more delicate genera like *Geissorhiza*, *Ixia* and *Gladiolus* in the garden itself quite impractical. Fortunately, Kirstenbosch was blessed with the construction of the Botanical Society Conservatory several years ago, which enables him and his horticultural colleagues to display a wide range of plants, particularly succulents, mainly from the drier regions of South Africa. One corner of the Conservatory is dedicated to bulbous plants, which are displayed inside the Kay Bergh Bulb House. This house consists of two sections - a changing display of potted specimens in flower, as well as a permanent display of evergreen species, including some fine examples of the genus *Clivia*.

Although he doesn't find writing easy, and prefers getting his hands dirty on the nursery potting-bench to staring into a computer screen, he feels compelled to write and share his experiences. His special interest in

the genus *Lachenalia* resulted in the publication of a popular guide to the genus in 1988 titled *The Lachenalia Handbook*, and he is now working towards a monograph of the genus. During the course of his writings he has been fortunate to work with some of South Africa's most distinguished contemporary botanical artists, including Fay Anderson, Ellaphie Ward-Hilhorst, Claire Linder Smith and Marieta Visagie. In the mid 1980's he collaborated with author and artist Barbara Jeppe to produce the book *Spring and Winter Flowering Bulbs of the Cape*, published by Oxford University Press in 1989, and co-authored the book *Bulbous Plants of Southern Africa* with Niel du Plessis, published by Tafelberg in the same year. The latter publication was beautifully illustrated by the highly talented botanical artist Elise Bodley, whose exquisite paintings from the book were exhibited at the Smithsonian National Museum of Natural History. The text and illustrations of this book received Nasionale Pers's Recht Malan Prize for non-fiction in 1990. More recently he has been involved in the publication of several cultivation and propagation guides in the Kirstenbosch Gardening Series, including one titled *Grow Clivias*. The next bulbous title in this series is *Grow Nerines*, due for publication later this year.

He has been fortunate to travel fairly widely, both locally and abroad, due to his interest in bulbous plants. He spent a three-month period working with the bulb collection at the University of California, Irvine, and presented papers at two of the most recent symposia of the International Society for Horticultural Science, held in Poland and Israel. During the latter trip, he had the intensely satisfying experience of seeing *dozens of the bright red Anemone coronaria* flowering in habitat on a windswept hillside in Jordan! Last year, their symposium was held at Kirstenbosch, and he greatly enjoyed serving on the organizing committee. He has been lucky enough to represent Kirstenbosch at both the Chelsea and Hampton Court Flower Shows, and recently had the very good fortune to travel to South America where bulbous species were observed and enjoyed in the wild. One of the most enjoyable recent visits abroad was to Japan in 1999, where he was able to visit the world-famous *Clivia* collection of Mr Yoshikazu Nakamura, perched somewhat precariously on a shady hillside in Chiba Prefecture, south of Tokyo. Mr Nakamura's legendary generosity resulted in Kirstenbosch obtaining several excellent variegated clones of *Clivia*, which he hopes to display at Kirstenbosch in the near future. He was recently the recipient of the International Bulb Society's Herbert Medal award at a most stimulating annual Spring Bulb Conference, held at the Chicago Botanic Garden, where he was able to meet many other bulbophiles from near and far. Recently, the Botanical Society of South Africa most generously financed the complete rebuilding of the nursery facilities at Kirstenbosch, including a vastly improved facility for the bulb collection. These new bulb greenhouses will soon accommodate the comprehensive wild-collected *Clivia* collection assembled by John Winter over the past few years, which will be displayed in the Botanical Society Conservatory.

2001 Show dates

Nelspruit

Date: 18 August
Venue: Tipperary Nursery, Nelspruit
(See notices on the Nelspruit/Kaapsehoop Road)
Gates open: 9.00 am.
Entrance fee: Free
Contact Person: Rory Niven,
Phone (013) 741 4803, Cell 082 923 5005; e-mail: niven@iafrica.com

Potgietersrus

Date: 24 & 25 August; (NB Friday and Saturday)
Venue: Van Rensburg Hall, Totius Str., Potgietersrus

Gates open: 10:00
Entrance fee: Free
Contact Person: Mrs S. Welgemoed,
Phone (015) 491 3882, Fax (015) 491 6680

(This show has been organised by the Mimosa Tuinbouklub).

Johannesburg

Date: 1 & 2 September
Venue: St. David's Marist College, Rivonia Road, Inanda.
Gates open: 9.00 am.
Entrance fee: R10.00 (including a raffle ticket for a champion plant).
Contact Persons: Trevor Pearton, Phone/Fax (011) 728-6492, e-mail: earton@icon.co.za
or Adri Haxton, Phone (011) 802 798

Pretoria

Date: 8 & 9 September
Venue: Die Wilgers High School, Lynwood.
Gates open: 9.00 am.
Entrance fee: R5.00
Contact Person: Dr. Lena van der Merwe, phone/fax (012) 804-1899, e-mail: nclivia@mweb.co.za

Pietermaritzburg

Date: 15 & 16 September
Venue: Royal Agricultural Showgrounds
Gates open: 9.00 am
Entrance fee: R7.00
Contact Person: Sean Chubb, Phone/fax (031) 781-1978, email: terric@iafrica.com

Newcastle

Date: 22 September
Venue: Town Library.
Doors open: 10.00 am
Entrance fee: Free.
Contact Person: Dries Olivier: Cell 083 264 6230, e-mail: dries@minmetals.co.za

Cape Town

Date: 22-25 September
Venue: Kirstenbosch National Botanical Gardens.
Gates open: 9.00a m.
Entrance Fee: R3.00 (Children R2.00); Pensioners free on Tuesday, 25 September.
Contact Person: Joy Woodward, Phone (021) 671-7384, email: woodward@nbict.nbi.ac.za

Port Elizabeth

Date: 28 & 29 September
Venue: Verkenner Primary School, Linton Grange.
Gates open: 10.00 am on 1 September, and 9.30 am 2 September
Entrance fee: R3.00
Contact Person: Willie le Roux, Phone (041) 360-3480

Advertisements. Tariffs for advertising in the Clivia Club Newsletter:

Full page - R200,00; 2 page - R100,00; 3 page - R50,00; per line - R5,00; A4 separate page insert - R800,00; A5 separate page insert - R400,00.

(You will be sent an account from the treasurer for the appropriate amount.)

From the Clivia Club:

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

Membership lists. Full membership lists are available from branches.

THE CLIVIA STORE

Once again we have a huge selection of various seeds. To date we have sold more than 9000 seeds in 243 orders!! Some 20+ people have order more than twice!! If you have never logged into the web site, you will be pleasantly surprised to see how easy it is to select seed. You will notice from the list we have included of our current stock, a large variety of seed. However many of the varieties only have a few seeds left. So don't be disappointed to find the stock has already been taken ! So go to www.clivias.com and place your order today.

Ken Fagher.

Clivia miniata , pendulous species, hybrids and other specialities available - seed, seedlings and mature plants. Visitors welcome. Connie Abel, Pretoria, tel/fax +27-12- 361 6406 or e-mail jcabel@freemail.absa.co.za

Clivia miniata : creams, yellows, peaches, apricots, reds, pastels and polychromes. Seed, seedlings and mature plants. Contact Bing Wiese, Pretoria tel. (012) 460 6382 to view.

Yellow Nogqaza strains from R15 to R120. Orange from R1 to R6 mature. Delivery anywhere. SOUTH AFRICAN CLIVIA PLANTATION, Box 855, Hilton 3245. Call 082- 955 5433.

Clivia miniata F1 (yellow x orange), "pinks" and pastels, flowering size @ R12. ***Clivia miniata*** yellows, flowering size @ R150. C. *miniata* >Stef's Perfume' @ R18,00. Extra for postage and packaging. Dries Bester, PO Box 75, Levubu 0929. Tel/Fax (015) 583 0299.

Clivia miniata bulk seed for sale. R100 per kilogram. Roly Strachan, Box 57, Highflats 3306 or Tel. (039) 342 385

Help! Running out of space! ***Clivia miniata*** for sale, a variety of colours - seed, seedlings and mature plants (reds, pastels & yellows). Also 8 flowering size C. *caulescens* . To view, contact Pat Gore (012) 335 3804.

Limited amount of top quality seed available. Contact Tino Ferero for details at Fax +27 12-546 8720 or e-mail fererokp@netactive.co.za

IMPORTED CHINESE CLIVIA

This offer is for the serious collector only. I have imported 3 different types of clivia from China. These plants are hand picked out of a few thousands of plants and I would like to offer some of these exceptional plants to the rest of the members as well.

Contact Louis Swanepoel on 082 447 1177 or (011) 3911197 after 19:00

Swamp Gardenii and Miniata seed and seedlings available from various Natal and Transkei locations. Phone Andrew (039) 3135024 a/h or cell 082 7845401.

Beginner's luck

Avoiding self-pollination

Question: How does one avoid self-pollination in clivia?

Answer: Shortly before the mother plant opens, when the buds have coloured up, carefully unhook the little catch at the front of the petals and ease them open. Pull off the unopened anthers and remove them from the flower. Now there is no way the plant can fertilise itself.

Nick Primich

On the compost heap



releases.

Great confusion is evident in clivia populations on the highveld, many of which have been coming into flower in June and July. They don't seem to know that all the shows have been planned for September! Listening to their conversation there is consensus among most plants that it was the bitterly cold weather in early May that has upset their >clivia rhythms'. However, they agree that the show options are quite numerous if they choose to flower a second time. Due to delay in flowering the Port Elizabeth Clivia Club in the Eastern Province has changed the dates of their show to 28/29 September, so this may be different to what is published in numerous magazines or other press

Lily Borer (*Brithys crini pancratii*)

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Brom-'n-Nel NURSERY

ATTENTION

ALL CLIVIA LOVERS

**SOUTH AFRICA'S BIGGEST
CLIVIA SALE EVER**

24-30 AUGUST 2001

Bertie and Erda Guillaume of BROM-N-NEL
NURSERY have decided to cut down on
their Clivia production.

After 30 years of breeding and improving the
genetic value, we will be selling up to 150 000
plants. Apart from the common Miniata, the
following will also be available:

Broad leaf red

Rare yellows

Variegated

Nakamuras

Variegated broad leaf crosses

We will be selling plants of all varieties and all
ages, as well as mother plants of all Clivias.

Seed of show winning plants will also be sold.

Do not miss this opportunity!!!!

Watch out for the next newsletter and do not miss
the press.

For further details contact

Bertie (015) 517 7162, Cell 082 825 2531

Erda 072 265 9467 or Celia 082 804 9650