# Clivia Club



# PO Box 74868 Lynnwood Ridge 0040 South Africa US\$20.00 (or equivalent) p.a. overseas

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

#### EDITORIAL

Up until the end of January the rainfall was 200 mm above the average on the highveld. Then, just to make sure that not too many records were broken, there was a long spell of dry weather coinciding with a heat wave over most of the country (this just happened to be when our new borehole pump packed up!). The Amaryllis caterpillar has been having a field time, and when I=m not watering the garden I am spraying for worms. As this activity is uppermost in my mind at the moment, >Beginner=s Luck= concentrates on an article about their extermination.

The >Clivia Review= which should have been issued with this edition of the newsletter is to be replaced with a >Year Book= of  $\forall$  sixty pages which should be available towards the middle of the year. It will be printed on glossy paper and approximately twenty four of these pages will contain colour photos. The

>Year Book= will include some of the papers given at the 1998 International Clivia Club Conference and amongst others, photos of some of the clivias which won prizes on the 1998 Clivia Club shows. The Cape Province Branch is coordinating the project.

An article from James Comstock explains how photographing clivia is more than meets the eye - it is a very complicated business requiring specialised and probably expensive photographic equipment. Some Australian Clivia Club members have been having problems with importing seed because forms have not been filled in correctly. We hope that this will not happen again and an explanation of what to do when sending seeds by post appears in this newsletter. Bill Morris has started a new project on the classification of known varieties of yellow clivia. Perhaps local and overseas members could furnish him with details of their named yellow clones. Jim Shields has brought to our attention a project which the International Bulb Society is coordinating regarding a database of geophytic plants in cultivation.

As a result of Northern Branch enquiries, several members have provided details of their clivia cultivation programmes. This newsletter includes one in Afrikaans for the benefit of all our Afrikaans speaking members. A Clivia grower=s programme from a Clivia Club member living on the highveld will be given in English in the next newsletter. Our scientific article is from our own club members, Prof Hannes Robbertse and Craig Honiball, about the characteristics of the epidermis of the clivia root, a very adaptable organ.

As deadlines for editorial matter seem to be ignored, the newsletter will no longer appear on a particular month but will be identified by the appropriate southern hemisphere season. This newsletter in the first quarter will be called the Autumn newsletter, the next Winter, then Spring and finally Summer.

There are a record number of new members whom we welcome to the Clivia Club and we hope they will become as interested in clivia as most of us are. For those members who have not paid their subscriptions, this is the last reminder for this year.

Meg Hart

#### FROM THE COMMITTEE

#### Chairman

Dear Member,

I have pleasure in announcing that the Committee has reconsidered the increase in subs for overseas members and has decided to rescind the decision to increase it from \$20.00 to \$30.00. Thus, the subscription will remain at \$20.00.

The reason for this change is the favourable exchange rate of the dollar against the rand. I apologise for any inconvenience and confusion.

Best regards,

Tino Ferero.

#### Membership Administrator

Just less than 600 newsletters of this issue will be posted to Clivia Club members. However, not all of these have renewed their membership for 1999. Please check the code (year paid/year joined) at the top right-hand corner of the address label to see whether you are a paid-up member. It should be 1999/9\* (\* year joined). This will be the last newsletter sent to unpaid members and it will be a pity if you do not receive the colour brochure which will replace the Clivia Review later this year.

Although the Clivia Club=s financial year has been changed from July to June, the membership year is from January to December.

Please do not forget to notify the Clivia Club of your change of addresses = and/or telephone number.

Adri Haxton.

#### Treasurer

Overseas members who have already paid \$30.00 will have the extra \$10.00 credited to next year=s subscription.

Please note my new E-mail address: ddbudg@nda.agric.za

Koos Geldenhuys

#### Editor

The last newsletter was certainly jinxed! What with all the other problems delaying the publication, the printer ran out of ink when the final copy was being printed and a new toner cartridge had to be bought before it could be completed (another day). Then the firm doing the photostating, who promised to have it done before Christmas, let us down and held up the process for another week over the festive season. Finally because of bulk mailing, the overseas members= newsletters were sent via surface mail instead of airmail despite being correctly paid for. Australian members only received their copies in late February. My apologies for all the delays and I hope it will not happen again.

Special thanks to Adri Haxton who always so willingly helps to proofread the newsletter.

Closing dates for submission of articles for the newsletter are at the end of January, April, July and August.

Thank you for all the letters and articles received. I hope they give the readers as much pleasure as they do me.

Meg Hart.

#### CORRESPONDENCE

#### Photographing clivia

From James Comstock

711 S Philadelphia St., Anaheim CA 92805-4746, USA

#### Dear Nick,

Sorry it has taken so long to answer your letter about photographing clivia. Hopefully this will reach you before too many of your clivias come into bloom and you can practice.

First I will describe what I do, then make some suggestions for you. My camera is a Mamiya 23 camera that uses 120mm film. This is a medium format camera with a frame size area maybe four times larger than 35mm. I use a very good quality close-up lens.

Lighting is very important. I have a studio strobe set up. Usually when I do clivias I have lots of plants to photograph and don=t has much time to customise the lighting very much for each plant, but some adjustment is always necessary. For instance, I would light a pendulous flower differently from an upright one. The basic set up, though, is two lights with photographic reflector umbrellas. This surrounds the flower with soft light which helps to capture subtle colours, delicate colour shadings and gradations. Harsh light from a small point source (like the typical flash on the camera) frequently washes out soft colours.

I place the umbrellas on either side of the flower. If the flowers are pendulous, I will position them slightly below the level of the flower pointing up to illuminate the throat of the flower. If the flowers are mostly upright, I position the umbrellas slightly higher, aiming down.

By placing the lights to the sides, you create very soft shadows which help to define the shape of the flower or umbel. If you use a single point flash that=s right on the camera, you either wash out any shadows or get harsh unattractive ones.

I usually use a black background as it makes the flowers really stand out. I take my meter reading off the flowers, as the black background tricks the meter.

My exposure is measured with a light meter. I try to shoot at f22. This gives me the most depth of field. With my studio strobes I have the ability to increase or decrease the light with the turn of a dial.

I usually shoot both negative and transparency film at the same time. It depends on what your final use will be. If you are going to make prints to send to people, shoot negatives. Transparencies are the generally preferred way to shoot if you are going to publish. One advantage of shooting with both is when I have a print made from a negative; I can take the matching slide in and say, Amake the print colours to match this slide@ (assuming the slide=s colours are accurate). Otherwise the lab has almost no clue as to what the colours should be. I have even taken a flower in and said Amatch this@. I generally use Fuji film. I just like the way it reproduces flower colours (except blue).

Now, I have no idea what your photographic experience is or what equipment you have. I will make here some suggestions that might help if you have minimal 35mm equipment.

- 1) You need to get close to show the unique characteristic of each different variety. Get a good close up lens.
- 2) Keep the lighting soft, it=s the best way to capture delicate colours and patterns. If you have no flash and are outside, do not shoot in direct sun. A lightly overcast day is ideal. Otherwise, move to light shade. If the shade is too dark, the colour of the lens tends to go blue (though you might not notice it, your film will). If you use a flash, try putting some type of diffusion over it.

- 3) Keep the background simple. Move the plant if you can or use a portable board or fabric.
- 4) Try to shoot at a small aperture like f16 or f22 to get the most in focus. This may mean shooting at a slow shutter speed, so you may need a tripod. If you are setting the camera manually, take the reading from the flower if the background is very light or very dark. If you are using a camera with an automatic exposure or with a built-in flash, use a background that is a medium shade, like grey (photographers use 18% grey as neutral). A medium grey background can be very beneficial for many reasons. If your camera is automatic, it will give you a more accurate exposure than if you had, say a pale yellow flower in front of a dark background.
- 5) Shoot a couple of different exposures. If this is your only chance to photograph this flower, what is the cost of a couple more frames of film to ensure you=ve got it.
- 6) Use a good lab to get proper development of your film and reasonable colours in printing. Even a custom lab will not know what colours the flowers are supposed to be. Give them some reference (like a good photograph?).

If you use a regular automated lab then try this. An automated lab has a printing machine designed to print a picture of a human being (the most common subject). It=s going to adjust the colour of your clivia to try to make it lean towards Ahuman colour@. The same goes for brightness of the image. To try to keep the automated printer happy; again use a neutral tone background, not white or black. Include some foliage in the picture.

7) Practice, experiment, have fun.

So, I hope this gives you some ideas. Write me if you have any questions. As I might see you at the conference, I=m planning to come, I=ve included a sample of a 3-D photo I took of a *miniata* x *nobilis* cross. Wonder how that=s done? Well, maybe later. See you in September?

Jim Comstock.

Nick, thank you for sharing this valuable information on how to photograph clivia which you received from Jim. Jim was one of the USA delegates at the International Clivia Conference at Kirstenbosch and was flashing beautiful brochures and photos of his Clivia. At least I know now why my photos always look so blurred - I haven=t got a close-up lens or any proper photographic equipment. I think I=II leave the photography to the experts. Editor.

#### Postal articles to Australia

Excerpts from a fax from Pen Henry (edited )

120 Caporn Street, Wanneroo, WA 6065

2 November 1998

Dear Meg,

I thought I=d better fax you as something very important has come up that needs urgent attention.

Our quarantine officers are having a field day with our mail. One Clivia Club member here in Australia lost seeds because they were posted to him still in the pods (prohibited). Another has had seed, pollen and even the accompanying letter confiscated since August because the sender did not fill the green declaration sticker in properly. He is waiting patiently for the seed and letter but the pollen was destroyed. I am waiting for word from AQIS (Australian Quarantine and Inspection Service) as I too received an empty jiffy bag with a letter from them stating that they had confiscated (seized) bulbs.

I have been fighting with them for over a week now, even my identifying them as seeds at their laboratory proved futile. They insist that they are bulbs! Last Friday I made the 2 hour round trip to Perth (worth it for clivia!) taking with me a full head of seed pods, still intact, to prove to them that they are seeds and not bulbs. The officer was going to compare these seeds from the head with the seeds posted to me at the lab and they will be ringing me back this week sometime. All this because the green sticker was not filled in! The sender had written >CONTENTS - SEED= on the pack but not on the green Custom=s declaration form.

Please, we do appreciate our clivia friends sharing their seed with us, and as everyone knows (especially because of the long period of time between pollination - seeding - flowering), sharing of our material can bring the results we are hoping for so much sooner. It=s terrible though when you receive an AQIS notice in the mail giving you a choice - >treated and returned= or >destroyed=. The treatment is heat at 50°C. I=d hate to see the seeds after that!

Anyway, I thought you could put a copy of the declaration in the newsletter and show people how to fill it in. For ADetailed description on contents: @ - write AClivia seed@. Don=t forget to insert a cross in the block provided if the article contains a gift. Also remind them that seed will only be allowed through if it is properly cleaned and declared.

I am sending a copy of the AQIS seizure notice so you can see for yourself what it looks like.

I=m racing out now to do some more potting. Pen.

#### AQIS TREATMENT NOTICE FOR POSTAL ARTICLES

Date 21-Oct-1998

Seizure No. WM98001048

PEN HENRY 120 CAPORN STREET WANEROO WA 6065

Dear Sir/Madam,

This is to advise you that your parcel from overseas was inspected by Quarantine Officers at PERTH IMC. Some/all of the following items need the prescribed Intended Action(s) before release:

ltem

#### Intended Action

BULBS

**Re-export OR Destruction** 

The detained item(s) will be held for a maximum of thirty (30) days from the date of this notice, at which time if no request for treatment/re-export has been received, the item will be destroyed.

If you wish to have the item treated/re-exported please return the attached remittance advice together with payment of forty two dollars (\$42.00) to:

#### AQIS Locked Bag 34 KINGSTON ACT 2604

Australia has strict quarantine laws to protect our plants, animals and environment from exotic pests and diseases. This is why you are not allowed to bring or post into Australia goods which may carry pests and diseases.

Could you please advise your overseas supplier, family or contact (,), not to include such items in future parcels sent to Australia.

We have also included a brochure which advises what type of goods you can=t take/send to Australia but need to be declared, and which goods are prohibited. Please take time to read this brochure carefully.

If you do not understand or have any questions, please contact your nearest AQIS Office [ (08) 9311 5366].

Yours sincerely, Gary Osborne Quarantine Officer.

The green Customs declaration form is very small (5.5 x 13.7mm) and is in English, Afrikaans and French. There is very little space on the form for ADetailed description on contents@. The writing is minute and the colour does not photostat well, so I am going to retype the English version of both sides of the form.

CUSTOMS (May be opened officially)	INSTRUCTIONS 1. If the value of the contents exceeds R1185 (300 SDR), only the upper part of this label
(Part to be detached if the article is accompanied by customs declaration, otherwise to be completed.)	must be affixed to the item and a custom declaration PP 27 must be completed.
See instructions on the back. Detailed description on contents: Insert a cross if the article contains a gift ~	2. The contents of your article (even if it is a gift or a sample) must be described fully and accurately. Disregard of these conditions may lead to delay of the article and inconvenience to the addressee or even to the seizure of the article by the foreign customs authorities.
a sample of the merchandise $\sim$	3. Your article must not contain any dangerous article prohibited by postals regulations.
Value Net mass	
(specify the currency)	

|--|

I can just imagine how upset Pen must have felt when she received the seizure letter from AQIS, especially as seed is often from special stock and awaited with much anticipation. I think that those quarantine officers must be offered a bonus for any material they confiscate!

Pen did eventually collect her seed and we hope that it was worth all the effort she went to! Ed.

#### Classification of the known varieties of yellow clivia

From Bill Morris

PO Box 17, Medowie, NSW 2318, Australia

16 December 1998

Dear Meg,

In an earlier newsletter (July 1997) you spoke of the need for a classification of the known varieties of yellow clivia with proper nomenclature. I am sure this really involves two separate projects. There seem to be many different names attached to yellow clivias and a lot of these are synonyms (different names for the same clone).

This I feel is something best worked out by growers in South Africa to eliminate the superfluous names. However, the classification of clivias including yellows can be done in different and various ways.

As you know of my interest in breeding yellows and other rare colour variants, I have been trying to understand their breeding behaviour and I would like to suggest a classification based on breeding and the characteristics of flower colours including yellow, peach, pink and near white.

Various earlier suggestions of classification of yellow grouped them into "True Yellows" (more correctly "True Breeding Yellows") and yellows which didn't produce yellow flowers from seed. The main example of the latter type was the plant known as Natal Yellow. Sometimes the "True Breeding Yellows" were called "Dominant Yellows" although it is difficult to understand where this name came from.

The "True Breeding Yellows" are in fact "True Yellows" in that the flowers are a pure yellow with no trace of any anthocyanin pigment (orange, red, pink or purple). This also applies to the fruit.

In contrast, in Natal Yellow and types like it, although the flower appears yellow they may have spots or streaks or other traces of anthocyanin pigment in them and the pods are usually not pure yellow. They may be off yellow to pink or orange etc. However, the main characteristic of the two types is that when they are intercrossed they produce pigmented (instead of green) seedlings which eventually produce normal orange coloured flowers.

Now as well as yellow mutations there are other mutations which can breed true when selfed or intercrossed but which will also produce normal orange flowers when crossed with an apparently similar colour variant. The Apeach@ clones are an example of this.

Wessel Lötter=s paper at the 1998 Clivia Conference and his article in the January 1998 Newsletter gave examples of many of these crossings, and others.

Recently Sean Chubb sent me results of a number of his crosses using Chubb=s Peach with various other peach clones.

In a recent letter Wessel also suggested that the two groups of yellows could be called Natal Yellows (not Natal Yellow) and Transkei Yellows on the basis of their geographical distribution. Unfortunately this is not a correct statement of their geographical occurrence and I suggest we abandon all these names based on colour or geography and simply call the two types (based on breeding type and colour purity etc.) Group 1 and Group 2.

Group 1 consists of the colour variants (yellow, peach or perhaps later, other colours) which breed true when selfed or intercrossed with other clones of the same group. Basically Group 1 consists of the old ATrue Breeding Yellows@ such as Kirstenbosch Yellow, Howick Yellow, Holmes= Yellow<u>s</u> etc. and Chubb=s Peach and Reed=s Peach. These all have pure yellow or pure peach flowers and seed pods. When Chubb=s Peach is crossed with Reed=s Peach unpigmented seedling are obtained and peach flowers are expected (not yet flowered) but when crossed with other peach clones pigmented seedlings are obtained. When Chubb=s Peach is crossed with Group 1 yellow plants the seedlings are again unpigmented and the flowers vary from peach (the majority) to so pale as to appear yellow.

Group 2 consists of Natal Yellow (A and B) together with the recently collected Ndwedwe Yellows (alpha and beta), Transkei Yellow etc. as well as Ndwedwe gamma Peach, Naudé=s Peach and possibly other peaches and probably the new Transkei Pinks found by John Winter and Mick Dower.

All of Group 2 show the presence of some traces of anthocyanin pigment (as spots, streaks or even glitter) and usually produce non yellow pods. Again the pods may show spots or streaks of pink or red or even mixtures of colours.

Thus Group 1 and Group 2 can be separated on appearance, generally purity of colour in the flower and fruit and the separation can be confirmed by breeding.

When plants are crossed within their group the colours are reproducible. In Group 1 the presence of anthocyanin in peach plants is dominant over yellow when they cross and any yellows obtained are probably very pale peach (unless yellow was the pod parent, when yellow may be due to selfing).

In Group 2 the same applies except, that as all are capable of producing some anthocyanin, the results will not be so clear cut. However, orange flowers (pastels) could be produced as well.

The inclination of Transkei Pink in Group 2 is provisional and is based on a number of observations. First, pinkish flowers have been reported in the orange offspring of Natal Yellow and Swellendam Yellow crossed with Group 1 yellows whereas no pinkish flowers have been reported from Group 1 plants. Secondly, as Transkei Yellow belongs to Group 2, it is likely the pink variant also belongs to Group 2.

Finally, although this is very circumstantial, some pink plants were so pale as to be almost white and a further near white reported to me has red pods. This is suggesting a relationship between pink and white in Group 2 plants because of the coloured pods.

My reference above to the possibility of the production of pastels within Group 2 is not to suggest that pastels in general are Group 2 plants. It is just that they may be produced and that plants that have

unusual (and generally tending towards yellow) colours or unusual colour distribution should be tested by breeding to determine whether they are related to these groups.

It appears from the breeding results, and as explained by Wessel Lötter in his Jan 1998 Newsletter article, the two groups differ in that two different genes have mutated and the different colours are caused by slightly different mutations of the same two genes. It is difficult to suggest a reason why, if a number of separate mutations had occurred (in the extreme case one mutation for each yellow, peach, pink clone, etc.) that only two out of the dozen or more genes involved in the manufacture of the anthocyanin ever mutated. However, if by chance only two primary mutations had ever occurred, then one mutant gene led to total failure of anthocyanin production to give the Group 1 yellows and a different mutation to a different gene led to the Group 2 yellows.

The Group 2 plants can still produce anthocyanin pigment but only in very small quantity and often only in certain cells or over a considerable time.

This however doesn=t explain how peach or pink flowers can occur with these different colours being produced apparently by the same two mutated genes. I suggest now that these other colours are produced by back mutation or what geneticists call suppression (suppressor genes).

Suppression is a further mutation (to the original altered gene) that suppresses the effect of the original mutation. In other words, the original mutation caused the affected gene to be unable to produce anthocyanin pigment (in Group 1) or unable to express it (in Group 2) but further change to the gene returns the ability to manufacture anthocyanin (and express it) in both groups.

These back mutations thus affect the same genes as were originally altered which explains their relationships to the corresponding yellows. However, the back mutations don=t have to return the production of anthocyanin to normal (although in some cases it could have, only we would never be able to recognise the situation). In the case of peach clones both groups can produce variable small quantities of anthocyanin pigment, just enough to turn yellow into peach or in some cases just enough to deepen yellow to gold etc. Some pastels could conceivably occur if more anthocyanin was produced but these could only be identified by breeding experiments.

In the case of pink flowers it is possible that the back mutation produces anthocyanin pigment but it may be a different anthocyanin. Alternatively if the normal red anthocyanin colour is a mixture of two anthocyanins (as often occurs) then the back mutation could change the ratio of the two pigments to give a new colour. Once again an examination of the pigments present in all these different coloured flowers is required to really understand the situation.

In my view the most important conclusion to be drawn for the grouping is as follows:

Most yellow breeding has been concentrated on ATrue Breeding Yellows@. However, both Group 1 and Group 2 are ATrue Breeding@ as long as they are crossed within their groups. I had previously advocated that Natal Yellow should not be used in trying to breed yellows. But now it appears to me that much more breeding of Group 2 Yellows (and the other colours) should be carried out as the colours obtained (or already present) are more variable and the potential to produce new colours seems greater. Also from the present occurrence of anthocyanin, as sports, streaks, glitter etc. as well as a fairly even distribution (in peach and pink) in Group 2 plants, there is the potential to obtain colour in many new combinations and distribution in the flowers. Also the presence of near white flowers in Group 2 plants suggests it may be easier to get whites from these plants than from pale yellows of Group 1.

Finally it appears at present that Group 1 plants are restricted to a small area of Natal whereas the Group 2 plants occur over a much larger area of Natal and the Transkei. In an earlier article I discussed how a mutated gene can spread through a population of plants in the wild and if this applies to the two mutated genes discussed here it suggests that the Group 2 gene is older (and has thus spread widely) while the Group 1 mutation is much younger.

There is however a possibly different explanation for the distribution. Overall, with the yellow plants, the Group 2 clones may be better growers, more vigorous and produce more suckers. Each clone is different, due to the normal variability of their combinations of genes but certainly some (for example Natal Yellow) are well known for their vigour and multiplication rate whereas the Group 1 yellows are often slower growers and propagators. If this generalisation is correct then it could suggest that the Group 2 mutation has spread much faster for this reason rather than that it is older.

The classification of Group 1 and Group 2 are listed below but unfortunately I have too little information to list any USA plants:

#### Group 1

#### Group 2

#### SOUTH AFRICA

Kirstenbosch Yellow Howick Yellow de Villiers= Yellow Original (1988?) Eshowe Yellow Watkins= Yellow Karkloof Yellow Holmes= Yellow

Chubb=s Peach Reed=s Peach Natal Yellow A Natal Yellow B Floradale Yellow Transkei Yellow Mvuma Yellow Ndwedwe alpha Thurston Ndwedwe beta Thurston Pat=s Gold Naudé=s Peach Meyer=s Peach Ndwedwe gamma Peach Transkei Peach Transkei near white

#### JAPAN

Vico Yellow Vico Gold

#### UNITED KINGDOM

Kewensis strain yellows

#### AUSTRALIA

Flowerdale Yellow Col Pitman Walter=s Yellows Morris= Yellows. I have not attempted to list all known clones. I would be very happy if others can add other clones and if synonyms could be eliminated. I would be interested to hear from anyone who has any other information regarding the grouping of these plants, whether their information supports or disagrees with my suggested scheme. Also I am sure the Editor of the Newsletter would welcome discussion of the suggestions in this article.

I would very much like to acknowledge the assistance I have received from many correspondents in receiving seeds of specific crosses which has enabled me to observe personally the results of such crosses. I would particularly like to acknowledge and thank Wessel Lötter, Sean Chubb and Mick Dower for the breeding information and discussion (in writing) which they have so freely given me.

Regards,

Bill Morris.

Bill has once again found something to write about regarding different clivia clones and I would certainly welcome discussion on the above classification. His division into Groups 1 and 2 clarifies the different types of mutations and the resulting clones. Bill also raises an interesting point regarding the distribution and spread of certain mutations being due to the vigour of the clone and/or age of the mutation. Has anyone else had any experience or has any theories about this?

Editor.

#### Inventory of Geophytes in Cultivation

To: A Editor"<hartmh@alpha.unisa.ac.za>

From: Jim Shields <jshields@indy.net> on 99/03/07 04:54:49 PM

The International Bulb Society has just established a Committee on Rescue and Conservation, of which I am chairman. One of our projects is to build a database of geophytic plants in cultivation. We would like to enlist the cooperation of related societies, of their committees for conservation or preservation, and in particular of their members who have collections of rare and unusual plants.

We would appreciate your bringing our program to the attention of your own committees or members concerned with preservation, propagation, or conservation of plants. We wish to establish a data bank listing which rare or unusual geophytes are in cultivation, where they are, and how many-- especially how many genetically distinct plants -- there are. This would be for the use of the organizations and groups contributing to the effort. It may have future relevance with regard to importation of plants from outside various countries.

We are at the early stages of organizing this inventory of geophytes, and would appreciate input from interested parties in other organizations, such as yours, into the design, the structure, and the execution of this inventory.

Sincerely,

James E. Shields, PhD Vice President THE INTERNATIONAL BULB SOCIETY

I am sure that the Clivia Club would be able to help with this database regarding clivia in both private and public collections. There are many Clivia Club members with big collections containing many varieties of clones of Clivia miniata and hybrid crosses with the other three species. Smaller collections also contain special plants, so it is going to be difficult to decide whom to include. Most of the people and growers mentioned in the newsletter to whom visits have been made have magnificent collections. We will discuss this issue at the next Clivia Club committee meeting and let you know how we can help you.

..\*..

Meg Hart. Editor.

### **VELAMEN IN CLIVIA ROOT\$**

Hannes Robbertse and Craig Honiball

Department of Plant Production and Soil Science,

University of Pretoria

We are referring to Bill Morris<sup>1</sup> remark in the Clivia Club Newsletter 7(3), July 1998, page 8, that the roots of *Clivia* and *Cymbidium* (orchid) are very similar.

This similarity is not only superficial, but there is also a structural similarity. Both the roots contain a *velamen*. A velamen, according to Jackson's Glossary of Botanical Terms (1916), is defined as "a parchment-like sheath or layer of spiral-coated air-cells on the roots of some tropical epiphytic orchids and aroids". The presence of a velamen in the roots of *Clivia caulescens* was described by myself (Hannes) in "Praktiese Plantanatomie" (van der Schijff and Robbertse, 1976). In the same booklet we also described a velamen in the roots of the ground orchid *Eulophia angolensis* and the epiphytic orchids *Acampe nyassica, Ansellia* sp. and *Angrecum* sp. Structurally there is hardly any difference between the velamen of *Clivia* roots and those of orchids.

The velamen (Fig 1) is a spongy tissue consisting of a multi-seriate epidermis. These specialised cells are formed by periclinal divisions of the epidermal cells, giving rise to a number of cell layers. After the formation of two sets of parallel ridges on the inside of the cell walls, crossing each other to form a reticulate structure, the cells die and become empty cavities, similar to empty paper bags kept inflated by a plastic grid along all the sides. Closer to the root tip of actively growing Clivia roots, there is no velamen. It starts some distance away from the root tip and gradually becomes thicker (multi-layered) towards the root base.

^ insert graphic

**Figure 1.** Portion of a transverse section of a *Clivia caulescens* root with a velamen. Figure 1A (low magnification) shows the velamen cells on the outside, followed by the exodermis (ex) and cortex. A few velamen cells, marked with a rectangle of broken lines, are shown in B under higher magnification. The reticulate thickenings on the cell wall are very prominent.

The function of the velamen is not yet clear. In the older literature it is alleged to be able to absorb moisture from the atmosphere for example in mountainous areas with regular foggy conditions or even in the damp air pockets in thick leaf litter. After rain or irrigation the velamen cells are filed with water which can enter the root cortex through passage cells in the exodermis (Fig. 1). Some authors rather see the velamen as a protecting layer of dead cells. The velamen surely protects Clivia roots from desiccation and this is why uprooted plants do not suffer too much if the roots (especially older roots) are exposed for prolonged periods. Young roots and root tips are more prone to drying out under conditions of water stress. The possibility of water and nutrient absorption by the velamen, is however, not excluded.

This explanation about the clivia root makes it easier to understand the adaptability of Clivia being epiphytic in some regions and being able to withstand winter droughts in others. In this study mention is only made of C. caulescens which by its very habitat is more epiphytic in nature than the other Clivia species. I would be interested to know whether there is any difference in the velamen of Clivia caulescens and the other species. Editor.

#### >N CLIVIA KWEKER SE PROGRAM

Ek wil dit duidelik stel dat ek myself nie as >n gesoute kweker van Clivias beskou nie. Die bietjie wat ek weet, is maar eie ondervinding en wat ek met die oë en ore steel. Wat volg is dus my manier van doen totdat ek iets sien wat beter resultate lewer.

**Bestuiwing**: Begin bestuif sodra die stamper verdeel, die stuifmeelsakkies oopbars en die droë poeier vrygestel word. Ek bestuif elke dag ten minste twee keer. Soggens is die beste tyd aangesien die kleefstof op die stamper nog vogtig en taai is. Omdat die blomme selde almal gelyk oopmaak is dit die beste om die bestuiwing van >n plant daagliks te herhaal. Sodoende word verseker dat elke blom wat gereed is om stuifmeel te ontvang, wel bestuif word. Ek bestuif elke blom dus >n hele paar keer omdat ek

glo dat die blom meer as een keer stuifmeel aanvaar. Ek staak die bestuiwing sodra ek sien dat die punt van die stamper bruin word.

Wanneer jy >n besondere plant met sy eie stuifmeel wil bestuif is dit beter om so >n plant te isoleer waar wind en goggas nie as bestuiwingsagente kan optree nie. Jy kry egter baie beter resultate met kruisbestuiwing. Indien jy bang is dat die plant se eie stuifmeel jou eksperimente met kruisbestuiwing mag beduiwel, knip jy bloot die meeldrade af.

**Oes van saad**: Ek sny die hele blomsteel gedurende die laaste week van Mei of die eerste week van Junie af. Sommige kwekers glo dat dit die beste is om die steel onderstebo op te hang. Ek verkies egter om die saad by die moederplant te hou en plaas dit bloot in die pot saam met die moederplant. Daarna duur dit gewoonlik vier tot ses weke vir die saad om ryp te word. Let daarop dat verskillende sade verskillende verkleuringseienskappe (dit kan varieer van rooi tot geel) het en dat saadkleur nie altyd >n betroubare aanduiding van rypheid is nie. My geloof is dat wanneer die saadknop sag is, die saad ook ryp is - dit is dan ook maklik om die sade uit te dop. Nadat ek dit uitgedop het, was ek dit met water waarby vloeibare opwasmiddel gevoeg is. Die seepwater verseker dat alle los velletjies en taaiheid maklik verwyder kan word en dien terselfdertyd as swamdoder. Maak baie seker dat die laaste dun vliesie om die saad wel verwyder is - dit is hierdie vliesie wat geneig is om tydens ontkieming te muf.

Nadat ek die saad gewas het, droog ek dit af met >n skoon handdoek en plaas dit dan in >n oop houer om droog te word. Ek ondervind die beste resultate as ek die saad vir so tien dae laat droog word en dit dan vir een nag in water week voordat ek dit ontkiem.

Ek ontkiem altyd eers die saad voordat ek dit plant. Gedurende die winter gebruik ek die elektries verhitte ontkiemers. Sodra warmer weer kom gebruik ek botteltjies waarin ek klam handdoekpapier geplaas het. U kan enige tipe houer gebruik solank die deksel dig seël sodat die vog nie kan verdamp nie. Selfs >n plastieksak wat toegebind word is effektief om die saad te ontkiem. Ek wil die volgende egter baie duidelik stel: gedurende die koue winter plaas ek die saad op >n warmer plek terwyl ek gedurende somermaande die saad eerder in >n koel plek plaas.

Sodra die worteltjies ongeveer 20 mm lank is, plant ek die saad in >n gesamentlik houer. Ander groeiers plant die saad sodra dit wortelontwikkeling toon. Ek verkies >n langer wortel, want ek maak >n gaatjie in die kompos en plaas die wortel in die gaatjie sodat die saad steeds bo die kompos is. Indien die worteltjie nog baie kort is, kan dit maklik gebeur dat die saad uitspoel wanneer jy dit natgooi.

Daar is persone wat sê dat die wortel groen word indien dit te lank in die houer gelaat word. Ek verkies om my saad in lig (nie helder sonlig nie) te laat ontkiem en glo ook dat >n groen wortel sterker is as >n bleker wortel en dat dit dus ook nie so maklik vrot nie. U moenie bemes voordat die saad eers uitgedroog en vanself van die plantjie skei nie. U kan daarna >n ligte bemesting toedien. Ek gee slegs blaarvoeding aan klein plantjies.

Na 12 tot 18 maande verplant ek die saailinge in 15 cm potte. Sodra die plant sewe tot ag blare het, verplant ek dit vir >n laaste keer in 20 cm potte. Vanjaar het ek pragtige oranje blomme gekry van plante wat steeds in die 15 cm potte is.

**Opbreek van plante**: Ek breek te enige tyd plante op, maar verkieslik wanneer dit nie blom nie. Indien die plant saad aan het, verdeel ek dit einde Januarie of vroeg in Februarie. My rede is dat die saad se stingel dan al taai is en nie maklik sal breek nie (indien van die saad wel afbreek, kan dit steeds ryp gemaak word en sal redelik goed ontkiem). Al my plante is in potte en ek spuit die groeimedium met >n tuinslang uit. Probeer om skade aan die wortels tot >n absolute minimum te beperk. Ek glo dat wortels

wat beskadig word, feitlik sonder uitsondering vrot. Dit skep die gevaar van botritus en vertraag die plantgroei. Voordat ek die plant verdeel spuit ek dit so skoon dat ek presies kan sien waar om te sny en ook seker kan maak of al die suiers wel wortels aan het. Indien >n suier nie wortels het nie, verwyder ek dit nie van die moederplant nie.

Ek hou altyd >n groot houer water byderhand waarin >n swamdoder (ek verkies Dithane M45) opgelos is. Ek laat die plante >n rukkie daarin lê waarna ek in elk geval al die wonde met droë swamdoderpoeier behandel. Indien die kompos klam is, laat staan ek die plant vir >n paar dae voordat ek dit plant - dit gee die snywonde kans om te genees. >n Clivia stoor baie vog in die blare en wortels en sal niks oorkom as dit nie dadelik geplant word nie.

**Plantsiektes**: Ek hou die meeste van my plante in >n beskutte huis van skadunet en ondervind nie baie las van die amarillaruspe nie. Indien ek wel die ruspes gewaar (gewoonlik in die somer), bespuit ek alle plante met Chlorpirifos of Dursban. Die ander gogga wat pla is die wit wolluis. Dit val meesal kleiner plante aan en gedy onder omstandighede waar daar nie >n vry vloei van vars lug is nie. Sodra ek dit gewaar, was (ek gebruik >n lappie of >n verfkwas) ek die plant eers goed af met water waarin vloeibare opwasmiddel opgelos is - moenie bekommerd wees dat die seepwater die plant sal beskadig nie. Daarna bespuit ek die plant met chlorpirifos of Dursban.

Gedurende die somermaande bespuit ek ook my plante een keer per maand met >n swamdoder om swamsiektes te vermy. Ek hoor party mense kla oor snuitkewers, maar het dit nog nooit gesien nie.

The above Clivia grower=s programme was received from a Clivia Club member who lives in the Western Cape and who does not wish to be identified. Editor.

#### ACTIVITIES OF CLIVIA CLUB BRANCHES IN SOUTH AFRICA

#### Cape Province Branch (AGM 21 November 1998)

I regret I am a bit late on reporting on our AGM held at Kirstenbosch on 21 November 1998. Well, we had a very pleasant meeting of 42 members, but the attendance should have been better.

It was reported that during the 1998 show 58 new members were recruited. Each new member received a small yellow clivia plant. These plants were donated by various members of our branch.

The show attendance was down compared with last year and this was due to the bad weather. Our chairman John Winter reported that 12 members exhibited at the 1998 show and said that the standard was higher than last year.

The following members were elected to serve on the committee for 1999: John Winter, Ian Brown, Mick Dower, Claude Felbert, Gert Wiese, Toy Jennings, Jim Holmes, Riel Lötter, John van der Linde, Quentin Jansen, John Sadler and Theo Beukes.

John Winter gave us an interesting talk on pollination and propagation of clivia seed. When cross-breeding is done, the stamens from the mother plant should be removed before the anthers burst open. The plant should also be isolated to prevent pollination by wind or insects. The pollen must be stored in the freezer to be used at any time. The pollen must be dry when stored and must be kept dry.

Seed is harvested when still green and allowed to ripen in a cool place. When ripe the seed is shelled and washed in clean water. There are several ways of treating the seed against fungus. It can be left in fungicide for half an hour, or it can be washed in a solution of Sunlight liquid soap. Seed is germinated by placing it in a new plastic bag containing a damp tissue. The plastic bag is then tied to keep in the moisture. John told us how Kirstenbosch germinate their seed. They place large quantities of seed in a plastic bag and mix the seed with fine milled damp pine bark and seal the bag. At a later stage the germinating seeds are picked out and planted in trays.

John=s growing mix is made up of 7 parts milled pine bark and 3 parts of milled pine needles. He does not use any sand with his mixture.

Gert Wiese

#### Dates of forthcoming meetings

General meetings will be held on Saturday mornings from 09:00 at the Gold Fields Educational Centre at Kirstenbosch on the following dates:

13 March 1999 29 May 1999 7 August 1999 27 November 1999.

Our annual show will take place on 17 - 21 September at the Sanlam Hall at Kirstenbosch. It is proposed that members of the committee will visit George and Port Elizabeth to hold meetings with members in those areas. Dates are still to be finalised.

John Winter.

#### Northern Branch Clivia Club (30 January 1999)

The Northern branch of the Clivia Club still has some teething problems but the positive factors definitely outweigh the negative ones.

Our advertisements in the local newspapers paid off since a large number of new faces attended our first meeting held on 30 January 1999 at 15:00 at the National Herbarium, Pretoria National Botanical Garden. I do not have a long association with the Clivia Club but I suspect that the exciting total of 58 attendees is a record.

We were privileged to have Geoff Meyer as our guest speaker on the topic of *The Clivia Calendar*. Geoff basically shared with us what he does when and how with his plants, seeds and seedlings. Geoff, I am sure many of us agree with the remark one of the members made, that it was the most informative presentation he had ever attended on the topic of Clivias.

Members who did not attend the meeting will probably raise an eyebrow when they hear that the two persons who brought the two raffle plants to the meeting eventually won those plants. Be assured, there was no cheating - the procedure was fair and square. Many thanks to Dawie Strydom and Pat Gore who donated the two plants and created the platform for Gert Esterhuizen to sell raffle tickets close to the value of R600.00.

We have more or less finalised our year programme (see below). Members who attended the meeting should take notice that the date of the meeting scheduled for March has been rescheduled for 27 March and not 20 March. A commercial company (Bark Enterprises) will address us on >potting soil mixtures=. We will also give a practical session in which three or four branch members will show the potting mixtures which they use.

Date	Form of meeting	Venue/s	Time
30 January	Branch meeting	National Botanic Garden, Pretoria	15:00
27 March	Branch meeting	National Botanic Garden, Pretoria	14:00
27 March	Bring and Braai for all members who joined in 1998 or 1999 members	The residence of Elda de Witt	∀17:30
29 May	Branch meeting	National Botanic Garden, Pretoria	14:00
24 July	Branch meeting	National Botanic Garden, Pretoria	14:00
28 August	Garden Visits	various venues	still to be decided
11/12 September	Northern Branch show	still to be decided	still to be decided
18 September	Garden Visits	various venues	still to be decided
13 November	End of year function	still to be decided	still to be decided
Still to be decided	Caulescens tour: Contac	t Chris Vlok at home (012 - 998 5	942) for details

May I make use of this opportunity to ask all members of the Northern branch (basically all South African members not affiliated to either the Cape or KwaZulu/Natal branches) to forward their e-mail addresses to me at vlokac@alpha.unisa.ac.za Some e-mail addresses were received in the returned questionnaires, but some of us (myself included) are better at raising clivias than in deciphering handwriting.

With regard to the proposed constitution, January and February were rather quiet months. The Club asked the three South African branches to respond to the proposed constitution by the end of February 1999. We are still awaiting input from one of the branches. As soon as we receive their comments the process will gather momentum. Tino, sorry for the hold-up.

Meg, I want to conclude by thanking you for the time and dedication that you put into the newsletter. The practical hints on how Mealy bug should be obliterated (Beginners Luck, Volume 7, Number 4, 1998) is symbolic of your initiative and the small things you do that all take time. Thanks Meg. Come on members. The newsletter is our newsletter. We can all help to make Meg=s job more of a pleasure by flooding her with articles, making comments, asking questions and meeting the editor=s deadlines.

Chris Vlok.

# KwaZulu/Natal Clivia Club (6 February 1999)

On 6 February 1999 we had our Annual General Meeting and the following people were elected to the Committee for 1999. Chairman - Sean Chubb, Secretary - Val Thurston, Committee Members - Brian Tarr, Jean-Luc Bestel, Carole Beckett, Alick McLeman and Dave Moon.

Dates of future even	nts:
5 June	Meeting - Home of Alick McLeman - C. Gardenii
14 August	Slide Show - venue to be decided later
4 & 5 September Annual KwaZulu/Natal Clivia Club Show - Royal Show Grounds, PMB	
Val Thurston	

Val Thurston

#### NEW MEMBERS as at 18 February 1999.

#### Australia

Mr D Barrett, 42 Hardy Street, Millswood, SA 5034, S Australia Mr J Harvey, 14 Ettricil Avenue, Medindie, SA 5081, S Australia Dr GD He, PO Box 1729, Toowong, Q 4066, Queensland Mr B Paten, 31 Annandale Crescent, Glen Waverley, V 3150, Victoria Mr L Rijke, PO Box 112, Romsey, V 3434, Victoria **RSA** Marietjie & Jean Agenbach, Bus 42, Koekenaap 8146, W Cape

Brian & Maureen Austen, 36 Soetvlie Avenue, Constantia 7800, (Cape Town), W Cape Anne Beumont, 302 Canopus Street, Waterkloof Ridge 0181, (Pretoria), Gauteng Roelf & Lulu Bezuidenhout, Posbus 15485, Sinoville 0129, (Pretoria), Gauteng Hennie & Essie Booyens, Posbus 3275, Somerset Wes 7129, W Cape Gallie & Petri Botes, Posbus 40112, Faerie Glen X 240043, (Pretoria), Gauteng Louis Botha, PO Box 73186, Fairland 2030, (Johannesburg), Gauteng Ira & Dawid Breed, Petersingel 11, Waverley 9301, (Bloemfontein), Vrystaat Eddie & Charmain Briel, Posbus 19780, Pretoria-Wes 0117, (Pretoria), Gauteng Leslie Burgess & Bobby Richter, 10 Clairwood Crescent, Milnerton Ridge 7441, W Cape Gabriele Christiansen, PO Box 369, Piet Retief 2380, Mpumalanga Owen & Sheila Clarkson, Box 615, Botha's Hill 3660, KwaZuluNatal Francis & Pieter Coetzer, Eskom 19, Grootvlei 2420, Gauteng Venessa de Boer, 59 Kelvin Road, Bramley 2090, (Johannesburg), Gauteng Ida & Piet de Wet, Buitekring 89, Stellenbosch 7600, W Cape Ian & Alison Dennis, PO Box 251, Umlaas Road 3730, (Pietermaritzburg), KwazuluNatal Liza du Preez, Willies Hillstraat 743, Pretoria Tuine 0082, (Pretoria), Gauteng Nico & Emmarentia du Toit, Posbus 47, Hartbeesfontein 2600, North West

Odelle & Karl-Heinz Erdmann, PO Box 1944, Bedfordview 2008, Gauteng Di Faircliff, Box 6162, Erinvale 7130, (Somerset), W Cape Jenny & Johann Faure, Buffelsgrasstraat 35, Birchleigh 1618, (Kemptonpark), Gauteng Elmien & Gerrit Feldtmann, Posbus 4622, Witrivier 1240, Mpumalanga Gaston & Ligia Fernandes, PO Box 7365, Roggebaai 8012, (Cape Town), W Cape Cynthia & Manie Ferreira, Posbus 905-471, Garsfontein 0042, (Pretoria), Gauteng Edgar & Riekie Fevrier, 9 Jakaranda Street, Camphersdrift, George 6530, W Cape Johan & Magda Fourie, 11 Kinnersley Street, Newton Park 6045, (Port Elizabeth), E Cape Renier & Hannetjie Fourie, Elgarstraat 10, Vanderbijlpark 1911, Gauteng Sam Greyvenstein, 10 Rutherford Road, Meadowridge 7800, (Cape Town), W Cape Gordon & Maureen Harper, PO Box 728, Richmond 3780, KwazuluNatal Liz Hatton, 5 Mnini Road, Kloof 3610, (Durban), KwazuluNatal Hélène & Brett Hendey, 16 Springdale Road, Kloof 3610, (Durban), KwazuluNatal Laureen & Darren Hindle, 42 Primula Rd, Wellway Park, Durbanville 7550, (Tygerberg), W Cape Bertus Horak, Posbus 409, Malmesbury 7299, W Cape Dr & Mrs CJB Hundleby, 10 Thistle Street, Fernwood, Newlands 7700, (Cape Town), W Cape Dave & Beth Jones, 11 Bredell Street, Edenglen 1609, (Edenvale), Gauteng Gré Jones, 72 De Villiers Way, Glencairn 7975, (Simon's Town), W Cape Stephen & Mellany Jones, PO Box 1223, Stellenbosch 7599, W Cape Hannes & Gertie Jordaan, Posbus 123, Montana Park 0159, (Pretoria), Gauteng Chris Joubert, Posbus 17021, Pretoria Noord 0116, (Pretoria), Gauteng Pieter & Marie Joubert, Posbus 163, The Crags 6602, (Plettenberg Bay), E Cape Fanie & Alta Joubert, Lourensrivierweg 53, Strand 7140, W Cape Ian & Kim King, The Dales, Valley Road, Houtbay 7800, (Cape Town), W Cape Bennie & Erika Kleyn, Neptune Straat 1, Oak Glen, Bellville 7530, W Cape Anthony Knipe, 6 Windsor Court, Edgemead 7490, (Cape Town), W Cape Marthie & André Kritzinger, Andragstraat 10, Vierlanden, Durbanville 7550, (Tygerberg), W Cape Susan Kruger, Posbus 11238, Die Tremloods 0126, (Pretoria), Gauteng Ina & PSJS Kunneke, Posbus 118, Malelane 1320, Mpumalanga Ramona & Walter Kusel, Private Bag X01, Harburg 3248, KwaZuluNatal Jurie Liebenberg, Squirestraat 5, Durbanville 7550, (Tygerberg), W Cape Dawn Lombaard, Posbus 279, Carolina 1185, Mpumalanga Jozua & Ona Loots, Posbus 32410, Glenstantia 0010, (Pretoria), Gauteng Brig. Wikus Loots, Posbus 20817, Noordbrug 2522, (Potchefstroom), North West

Estelle & MW Louw, Geelfontein, Posbus 144, Porterville 6810, W Cape Mrs M Manson-Smith, Tourgar, PO Box 11468, Dorpspruit 3206, (Hilton), KwazuluNatal Leon Naudé, Durbanweg 90, Mowbray 7700, (Cape Town), W Cape Sakkie & Esmé Nel, Posbus 35235, Menlopark 0102, (Pretoria), Gauteng Niek & Sue Noeth, Posbus 782, Parow 7499, W Cape Braam Opperman, Posbus 5609, Weltevredenpark 1715, (Roodepoort), Gauteng Tricia Owen, 6 Zion Road, Claremont 7708, (Cape Town), W Cape Trevor & Ingrid Papier, 12 Margaret Avenue, Pinelands 7405, (Cape Town), W Cape Annette & Tol Pienaar, PO Box 323, Stilbaai 6674, E Cape Rina & Johan Prinsloo, Emeraldlaan 205, Lyttelton Manor 0157, (Centurion), Gauteng Anna & Danie Rautenbach, Posbus 46, Patensie 6335, E Cape Fanie & Elizabeth Redelinghuys, PO Box 66, Wolseley 6830, W Cape Robbie Roberts, Posbus 81, Klein-Brakrivier 6503, (Mosselbaai), W Cape Sandy & Paul Sampson, 6 Welwyn Avenue, Pinelands 7405, (Cape Town), W Cape Alvina Scamvougeras, PO Box 2488, Clareinch 7740, (Cape Town), W Cape Reg September, 87 St Kilda Road, Crawford 7780, (Cape Town), W Cape Ian Simpson, Simpson Belegging, PO Box 248, Riebeek Wes 7306, W Cape Joe & Jill Skowno, PO Box 68958, Bryanston 2021, (Sandton), Gauteng Marieke & Skottie Smit, Brugstraat 5, Paarl 7646, W Cape Grant & Gillian Smith, PO Box 77, Mid Illovo 3750, (Pietermaritzburg), KwazuluNatal Nic & June Smith, PO Box 575, Howick 3290, KwazuluNatal Sarel & Marieta Spies, Posbus 100, Duiwelskloof 0835, N Province Ken & Yvonne Strachan, 18 Old Howick Road, Pietermaritzburg 3201, KwazuluNatal Prof. Lötz & Aletta Strauss, Copse-steeg 90, Lynnwood Glen 0081, (Pretoria), Gauteng Jurie Swart, Willie du Plessisweg 11, Fichardtpark 9301, (Bloemfontein), Vrystaat John & Philda Taft, 82 First Avenue, Fairways 7800, (Cape Town), W Cape Ritha & Bill Tolken, Fairtrees Way 24, Durbanville 7550, (Tygerberg), W Cape Jaulanne Totman, 27 Bellevliet Road, Observatory 7925, (Cape Town), W Cape Lelani Trollip, Posbus 3622, Brits 0250, North West Martienet Uys, Posbus 5, Suurbraak 6743, W Cape Wilna & Sybrand van der Merwe, Rubenstraat 54, Sasolburg 9570, Vrystaat Dalene & Johan van der Vyver, Sluyskenstraat 23, Monte Vista 7460, (Cape Town), W Cape Wimpie van Rooy, Posbus 2022, Wingate Park 0153, (Pretoria), Gauteng Henri van Rooyen, Posbus 2690, Welkom 9460, Vrystaat

Zelna van Schalkwijk, Posbus 48117, Hercules 0030, (Pretoria), Gauteng Hannetjie van Tonder, Posbus 176, Faerie Glen 0043, (Pretoria), Gauteng Hannes van Wyk, Posbus 30045, Tokai 7966, (Cape Town), W Cape Jean & Abrie van Zyl, Posbus 35, Citrusdal 7340, W Cape Pieter Vermaak, Posbus 859, Tzaneen 0850, N Province Elize & Paul Viljoen, Algoastraat 6, Nerina, Durbanville 7550, (Tygerberg), W Cape Dolf Vorster, PO Box 13470, Northmead 1511, (Benoni), Gauteng Jessie & Ian Walton, Posbus 78, Elgin 7180, W Cape Kenneth & Sharalee Warner, 6 Alley Yeld Crescent, Fish Hoek 7985, W Cape Dave & Inx Winde, PO Box 463, Knysna 6570, W Cape Zimbabwe John Graham, PO Box Bw 52, Borrowdale, Harare

#### CHANGE OF ADDRESSES AS AT 18 February 1999

#### RSA

Pat Bennet, PO Box 1304, Hilton 3245, KwazuluNatal

Jean Ehlers, Posbus 51977, Waterfront 8002, (Cape Town), W Cape

Maria Norman, 84 Hoy Avenue, Brakpan 1541, Gauteng

Johan & Mara Schoombee, 2 Gillian Road, Eversdal 7550, (Bellville), W Cape

#### NEW E-MAIL ADDRESSES AS AT 18 February 1999

#### Australia

Karen Bowler, Victoria, bowler@iaccess.com.au

#### RSA

Francis & Pieter Coetzer, (Grootvlei), Gauteng, coetzefg@mp\_grootvlei Koos & Fransie Geldenhuys, (Pretoria), Gauteng, ddbudg@nda.agric.za Di Faircliff, (Somerset), W Cape, fairo@mweb.co.za Ian & Kim King, (Cape Town), W Cape, ian@plant-people.co.za Johan & Mara Schoombee, (Bellville), W Cape, ijs@db.za Jaulanne Totman, (Cape Town), W Cape, jewel@new.co.za Hannes van Wyk, (Cape Town), W Cape, jewel@new.co.za Odelle & Karl-Heinz Erdmann, (Bedfordview), Gauteng, kltplant@intekom.com.za Prof. Lötz & Aletta Strauss, (Pretoria), Gauteng, Istrauss@icon.co.za Jozua & Ona Loots, (Pretoria), Gauteng, onal@debis.co.za Trevor & Ingrid Papier, (Cape Town), W Cape, papier@new.co.za Stephen & Mellany Jones, (Stellenbosch), W Cape, rmh@risa.co.za Keith & Eileen Rose, (Sandton), Gauteng, roselene@iafrica.com Joe & Jill Skowno, (Sandton), Gauteng, skowno@icon.co.za Ira & Dawid Breed, (Bloemfontein), Vrystaat, ssibfn@iafrica.com Tricia Owen, (Cape Town), W Cape, tricia@chempath.uct.ac.za Lelani Trollip, (Brits), North West, trollip@lantic.co.za Wimpie van Rooy, (Pretoria), Gauteng, wimpie.van.rooy@nvision.co.za

#### **United States of America**

Cathy Craig, California, batlette@home.com

#### Zimbabwe

John Graham, laureen@africaonline.co.zw

FOR SALE

#### From the Clivia Club:

**Advertisements.** In future there will be 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.

**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.

**ATHE 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  $\forall$  3 weeks for printing. Cheques to be made out to VA Thurston.

**NB** New address: Val Thurston, PO Box 3181, Westbrook 4400, South Africa. Tel. (0322) 41316 after 4 pm.

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*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.

*Clivia miniata* F<sub>1</sub> (yellow x orange), Apinks@ and pastels, flowering size @ R12 plus postage and packing. *Clivia miniata* yellows, flowering size @ R150 plus p&p. Order <u>now</u> for this year=s flowering season. Dries Bester, Box 75, Levubu 0929. Telephone/Fax (015) 583 0299.

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e-mail: trollip@lantic.co.za

#### **BEGINNER=S LUCK**

The Lily borer has been particularly active this year and many plants have been damaged. It is essential that a regular spraying regimen be enforced to protect plants and the subsequent spread and devastation to clivia collections. This must be started early in the season and continued until colder weather starts i.e. from September to April. Indoor and smaller collections can be controlled more easily by regular inspections, checking the underside of leaves for eggs, removing worms or cutting off damaged leaves as soon as the telltale tunneling is noticed.

Not so easy to monitor are large outdoor collections. The use of an insect light at night is one way of attracting the moths which are then burnt on contact with the electric elements. Regular inspection is essential but prophylactic spraying is also necessary to prevent leaf damage and destruction of the bulb. Contact insecticides do less damage to the environment and are effective if applied on a weekly basis to the whole plant and particularly the underside of the leaves. Those recommended by clivia growers are Karbaspray (active ingredient Carbaryl) and Garden Ripcord (active ingredient Cypermethrin). Systemic insecticides containing Organophosphates are extremely toxic to fish, bees and wild life and are not advised. Some Clivia growers recommend that a different insecticide be used each week and this regimen also helps to keep the Mealy bug at bay. Make sure that other Amaryllids in the garden are also sprayed or they will act as hosts and the cycle will be repeated. Repeated infestations after regular spraying may mean that your neighbour=s plants are harbouring the pest, so you may have to check and spray them as well.

The Amaryllis caterpillar seems to prefer Crinum or Nerines to Clivia (whether it is because of the texture of the leaves or the taste of the Clivia, I do not know), so it is a good idea to plant them in your garden so that they act as the first line of infestation. Once you see them, be on the alert and check your Clivia.

Meg Hart.

#### ON THE COMPOST HEAP



..\*..

There are now so many clivia gatherings that more and more enthusiasts must be cultivating them. I wonder how many new clones will result in all this cross-pollination? I am looking forward to inspecting the database of rare and unusual clivias in cultivation so that I have the addresses at my fingertips.

Seeing that I play such a portentous part in most newsletters and in the lives of all clivia growers, please would someone give me more details about my origins and history. I would also like some more photographs of myself.

Lily Borer

# Clivia Club

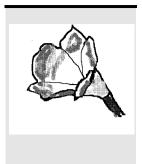
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#### Volume 8 Number Two Winter 1999

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..\*..

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

..\*..

# EDITORIAL

I am preparing this newsletter and writing the editorial from Godalming in Surrey. Everything is green and the Rhododendrons are blooming and creating magnificent shows. The soft climate and cloudy moist days are far removed from the harsh sunny highveld of South Africa. I can only think how well clivias would thrive here with all this moisture if it wasn=t for the very cold winters. Do any clivias survive outdoors in Europe? The only clivias I have seen have been indoors. My son=s yellow clivia plants which germinated from seeds in 1996 (obtained from Nick Primich, ex Yoshikazu Nakamura plants) are all doing well and I hope that I will be able to see them flowering one of these days.

I sometimes wonder what we would discuss in this newsletter if it was it not for a >sport= or genetic aberration - the yellow clivia. As 'Vico Yellow' and 'Vico Gold' are both grexes, Sir Peter Smithers has pointed out their correct nomenclature and has reminded us of their origin which is Switzerland, not Japan. Daan Dekker is having success in breeding yellow clivias, the origins of which are from a different area in Natal. Bill Morris has some comments to make about articles in previous newsletters on >terminology= and >velamen=. Robin Holmes suggests that more use is made of the RHS colour chart when describing the different coloured clivias, especially with regard to recording show specimens. Some sleuthing in Nature Conservation offices has led Keith Rose to inform us how to be law-abiding citizens regarding the purchase and transportation of clivia as it is a protected species. Overseas members, Mike Bertram from >Down Under= and Lisa Mannion from New Zealand, write to us about their clivia collections. James Haxton has started a Clivia Forum on the www. Pieter Oosthuizen who works in the Department of Agriculture in Pretoria has found descriptions about the Lily borer which he shares with us and a clivia grower on the highveld with a splendid collection furnishes us with his secrets for success and provides a calendar to follow throughout the year.

News from the branches indicates that some members have been having a busy time showing and selling their plants. Most of us are resting after a busy season trying to contend with the Lily borer and all the damage it has done to our collections this season. Thank goodness the cold weather in South Africa has put him to sleep for a while. The Clivia shows will be upon us again soon and details of these are given.

The annual Clivia review which this year incorporates proceedings of last year=s Clivia >98 Conference will soon be in the post. The Cape Branch has been responsible for this publication and we look forward to seeing the fruition of their efforts.

Welcome to our new members and especially to our first member ever from Thailand. We hope that we will see new RSA members at our meetings and shows and that some of you will contribute ideas and articles to the newsletter. Advertising in the newsletter is taking off and this income will help to subsidise the production costs. One of these days we may even be able to have a newsletter of the same quality as the Clivia Review.

We have lost several of our Club members. Mrs Watkins of the famed >Watkins=s Yellow= clivia died after a long illness. Stef Schoeman, one of our oldest members has also passed away. Toy Jennings has very recently lost her husband. We extend our deepest sympathy to the relatives and friends of the bereaved.

Meg Hart.

..\*..

#### FROM THE COMMITTEE

#### Chairman

Dear Member,

The constitution is nearly finished and we are hoping to have a final daft in place before the end of the year. The Cape and Northern Branches have submitted their comments and the KwaZulu/Natal Branch should have their input in by the end of June. The final draft will be prepared and sent out to the different branches and other interested persons for their comments before it is submitted at an AGM for final consideration and acceptance.

Tino Ferero.

--0--

#### Membership Administrator

Membership continues to increase. We posted 595 copies of the last newsletter, but some of these were not to paid up members. Since then we have had about 60 new members. Not all these names are in this newsletter as they were not processed before the deadline.

Please do not forget to notify the Clivia Club of any change of address and/or telephone number.

Adri Haxton.

--0--

#### Editor

Thank you for all the letters and articles received. I hope they give the readers as much pleasure as they do me. Please try and submit news and articles for the next newsletter before the end of July. The new printing firm takes considerably longer to produce the newsletter and it would be desirable to have it out before the shows.

Meg Hart.

..\*..

#### CORRESPONDENCE

Further comments on terminology

From Bill Morris

PO Box 17, Medowie, NSW 2318, Australia

8 March 1999

Dear Meg,

I would like to make some further comments regarding Nick Primich=s ATerminology@ article in the April 1998 newsletter.

**Regarding AYellow@ clivia flowers**. This is a descriptive term. Both ATrue Breeding@ Yellows and Natal Yellow have yellow flowers according to a colour chart and most observations. The presence of red blotches or speckles, particularly as few and as difficult to see as in Natal Yellow flowers, doesn=t change the colour of the flower. It is still a A<u>True Yellow</u>@ although not a A<u>Pure Yellow</u>@. In the above AI am advocating the direct use of the English word@ as stated by Nick in his article. Even a flower with obvious spots or blotches of another colour can still be a yellow flower overall.

**True Breeding Yellows**. We have all used this term for certain yellow clones such as AKirstenbosch Yellow@, Howick Yellow, Vico Yellow, Australian Yellows, etc., which give 100% yellow flowers and unpigmented seedlings when intercrossed. This separates these clones from the Natal Yellow clone which when crossed with them produces 100% orange flowers and pigmented seedlings.

However, Wessel Lötter=s experiment appear to show that there is more than one Natal Yellow clone and that when intercrossed these plants are likewise ATrue Breeding@ and produce 100% unpigmented

seedlings and presumably 100% yellow flowers. Thus it appears there are at least two groups of ATrue Breeding@ yellow clivias and perhaps we may find more.

In my opinion it is probably better to simply divide the yellow clivias into two groups and call them Group 1 and Group 2, both of which are true breeding within their groups but which produce orange offspring when intercrossed.

A Strain. A strain is <u>not</u> Aa line of descent or a population that has been isolated for many generations. @ A strain, according to the RHS Dictionary of Gardening (for example), is AA stock of a particular variety, selected with special attention to some minor, though perhaps important character and breeding true to it.@ The important word here is Aselected@. Certain characteristics are chosen and then selected for in subsequent generations. After sufficient generations almost all the plants produce this characteristic and you have a strain: in clivias, for example, broad leaves or dwarf size; in pansies, perhaps black flowers; in wheat, early ripening or short growing period, etc. They do not necessarily have a fairly standard genotype as all their other characteristics may be quite variable. For example, again in clivias, a broad leaf strain need not have consistent flower colour. The flower colour could vary over the same range as wild clivias unless <u>selection</u> occurs. A population that has been isolated for many generations leads to the plants becoming more and more homozygous tending to Aa fairly standard genotype@ as stated by Nick but without selection it won=t produce a strain. A strain, in the horticultural sense, involves <u>human selection</u>.

This is why you can have a Japanese strain, an Australian strain, a Kew strain, etc. In these cases they probably started off with different parents (not necessarily wild collected clivias) and because of different growing conditions (eg. glasshouse versus garden etc.) and different tastes, human selection (both inadvertent and deliberate) has ended up with plants that both look and behave (grow) differently. But without human Ainterference@ they wouldn=t exist.

Regards,

Bill.

Bill has explained the various terms eloquently. His article AClassification of the known varieties of yellow clivia@ which appeared in the last newsletter (Autumn 1999) clarifies many of these points. Where are some of our learned botanists who can comment more assuredly on these terms? Editor.

..\*..

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Correct nomenclature for 'Vico Yellow' and 'Vico Gold'.

From Sir Peter Smithers

in di Pradon 19, 6921-Vico Morcote, Switzerland

11 April 1999

#### Dear Meg,

There is a small correction to be made in Bill Morris' useful classification of yellow Clivias.

The origin of the Kewensis plants has been set out by me at length in 'Herbertia', but briefly it is that a plant of *C. miniata* 'Citrina' received at Kew from South Africa between the wars was lost. But it had been growing and flowering in a house with plants of *C. miniata*. The Kew Hybridist Charles Raffill started selecting back from seed of the orange plants and finally arrived at a 'yellow', no mean feat of plant breeding. This was named C. x Kewensis 'Cream' which accurately described the colour. It had much better florets than the original 'Citrina'. Many of the resulting orange plants were also of superior form. I think that this constitutes a grex and is best referred to as such. The grex includes the orange plants, a number of which are growing here. [>Grex= is the botanical term for all the seedlings of a particular cross].

Vico Yellow and Vico Gold, which appear in Bill's list under Japan, were raised by me here in Switzerland and have nothing to do with Japan except for the fact that they have been micro propagated and distributed world wide by Miyoshi and the Clivia Breeding Plantation in Japan, having proclaimed them 'world=s best yellow Clivia, the one to beat', are quite rightly breeding to try to do just that. Their parentage was 'Kewensis Cream' x 'Kewensis orange clones'. They should therefore be described as C. x Kewensis 'Vico Yellow' and C. x Kewensis 'Vico Gold'. They should be listed under Switzerland, not under Japan.

The two cultivars are so similar that horticulturally they seem to me indistinguishable but genetically they are probably not identical and therefore interesting to breeders. Both carry pure yellow seed capsules and are extremely vigorous. A leaf measured this morning is 2 ft 5 in x 2 3 in.

Best,

Peter.

#### From the Editor

12 April 1999

Thank you for your e-mail commenting on the origins and nomenclature of 'Vico Yellow' and 'Vico Gold' and for pointing out that they should be listed under Switzerland and not under Japan using the grex you suggested.

I think the reason why we automatically think of them as coming from Japan rather than from Switzerland is because they have been aggressively advertised and marketed there. It is also easier to refer to them as 'Vico Yellow' and 'Vico Gold' rather than the longer grex names of C. x Kewensis 'Vico Yellow' and C. x Kewensis 'Vico Gold'. I will do my best to rectify this in future newsletters.

I asked you once before where the word 'Vico' comes from? What does it mean and why did you choose that name? It obviously has something to do with your address in Switzerland.

#### From Sir Peter Smithers

Many thanks. The x Kewensis is important genetically to those doing breeding.

13 April 1999

Vico Morcote is the small village where we live, and this garden is widely known in horticulture circles simply as 'Vico Morcote'. So all hybrids originating from this garden which need a cultivar name to distinguish them from others, get the Vico prefix.

Peter.

..\*..

#### Some more origins of >yellows=?

From Daan Dekker

Box 166, Dundee 3000

29 April 1999

Dear Meg,

I have been reading the different views of classification of Clivias with great interest. Initially one can get quite confused with "True Yellows", "Natal Yellows", etc., etc.

The classification set out by Bill Morris in the Autumn 1999 issue of the Newsletter was most helpful in this regard.

Allow me to add something that might be helpful regarding the distribution and spread of the "Natal Yellows". In this way one can get a clearer understanding of these beautiful flowers.

A keen local botanist, Mr Klingenberg, cultivated yellow clivias for many years (he has since retired). A few years ago he made about 80 yellow flowering plants available. These plants were mostly bought by local people. A few were sold to a nursery in Pretoria.

Points of interest:

- \$ he obtained two plants from the Seven Oaks and Dalton area
- \$ unfortunately he has never had success cultivating yellows from seed only from suckers.

My initial experiments cultivating "yellows" from these plants was disappointing, but I am happy to say, now I have 200 young plants, all with green bases as well as different crosses, that might even be flowering this year.

We hope to attend the Natal Clivia Show in September this year!

Daan Dekker.

Perhaps you have found >Natal Yellow C=! Ed.

#### Comments on the function of velamen in clivia roots

From Bill Morris

PO Box 17, Medowie, NSW 2318, Australia

20 April 1999

Dear Meg,

I was very interested in the short article on velamen in Clivia roots by Professor Robbertse and Craig Honiball and your question regarding its presence in other species. My simple observations would indicate that roots of *C. nobilis*, *C. miniata* and *C. caulescens* are very similar whilst *C. gardenii* roots appear different.

..\*..

As I have never seen any of these plants in habitat I am not in a position to comment directly on the conditions that the plants grow in. However, reading the Newsletter descriptions and seeing photographs, it appears that both *miniata* (rarely) and *caulescens* (occasionally) can occur as epiphytes and *nobilis* frequently grows in sand and sand dunes close to the ocean. The first two species mentioned above also are frequently found on rocks or scree. All of these environments, and when the roots grow in thin or even thick leaf litter on top of the soil, are situations where lack of water can frequently occur, due to rapid drying out (compared to soil).

Although the velamen article stated "the function of the velamen is not yet clear", it is apparent that the roots in orchids can change their appearance, from white to a pale green in less than 30 seconds when watered. As the article states "After rain or irrigation the velamen cells are filled with water". Thus absorption of water can occur very rapidly and even short light showers or even moisture condensed from fog or mist (dew) can be taken into the plant and utilised later. The change observed in the roots occurs much , much quicker than the apparent reverse change and even this reverse change may only be on the surface and the internal water filled cells may take considerably longer to return to their original condition.

Thus it is difficult not to believe that the occurrence of these velamen type roots is an adaptation to take advantage of small amounts of water, e.g. light showers or dew, which would not be sufficient to wet the soil. As the epiphytes often have no roots in the soil (perhaps aroids are an exception here as the early epiphytic roots often eventually reach the soil) to take advantage of water present there, they are advantaged by such adaptations as the velamen bearing roots.

The possible exception in Clivia is *C. gardenii*. This species is reported to frequently grow in swampy conditions and probably has no special need for water conservation and absorption. Thus its roots are much thinner, and also branch much more often and generally are closer in appearance to ordinary roots. However from their thickness they may have a thin velamen layer which may only be the remains of a thicker velamen layer from some ancestral type. Similarly any protective action of the velamen layer is less required in *C. gardenii*.

In answer to your question, Meg, I would therefore suggest that *miniata* and *nobilis* are similar to *caulescens* in their root structure and as the article's authors observed, very similar to many orchid roots. However *C. gardenii* may be different, but may have some resemblance to the others.

Regards,

Bill Morris.

The group which visited the Kranskop area in 1996 found a C. gardenii which was epiphytic. James Haxton has a photograph of it and thinks Connie Abel may also have one. Ed.

..\*..

#### **RHS** colour chart references

From Robin Holmes

PO Box 855, Hilton 3245

10 May 1999

I hope this letter is useful in stirring up some debate and helps to build up a database.

Over the years in every edition of the Club's newsletter there have been references to the colour of Clivia flowers. Unfortunately there have been only two references to the exactitude of colour using the RHS

colour chart. For the 'garden' member this is understandable, considering the cost of said chart, and is therefore excusable. But I appeal to the 'professional' members and other learned scribes to please include colour chart references when referring to yellow, cream, gold, red, pastel, pink and so forth.

I would go further and urge that judges at shows list the relevant colour chart number with all awards. This information can then be noted in the newsletter.

It would also be of immense interest to add a further reference, that pertaining to leaf length and width. References would be noted thus:

RHS 30B 550/80

RHS 32C 955/55

This would not be such a schlep for the judges, but would be of immense interest to clivi-atics both now and in the future.

Robin Holmes.

You have certainly raised a most relevant point regarding colour coding clivia blooms. I am sure that it is just a case of putting the exercise into practice and without a colour chart this cannot be done. However, there are some problems in that the colour of a flower is not necessarily the same year after year. It may change if the plant is moved from a lighter to a darker area or vice versa. It may also change if fed certain fertilisers. If it flowers at a different time of the year, the colour may also differ. So, one would only be able to note that the plant on that particular date and in that particular place had a certain colour.

The Royal Horticultural Society (RHS) colour chart certainly has its merits but the cost puts most people off buying one. In 1995 the cost was ,60 and it is probably over ,100 today. In Rand terms that is approximately R1000! The RHS colour chart contains small swatches of all the colours of the spectrum displayed in four separate booklets (one for reds, one for blues, one for greens and one with muted or greyish colours). Each page has a code identifying the colour. Clivia growers really only use the red booklet containing the yellow, yellow/orange, orange, orange/red and red colours. Unfortunately one cannot only buy the red booklet. Therefore if one buys a RHS colour chart for checking the colour of clivia flowers most of the other three booklets will probably never be used.

Regarding the size of the leaves. Which one would you measure? The biggest, longest or broadest or would you take the average of the three most spectacular? Editor.

#### Propagating and selling clivias - the legal route

By Keith Rose

PO Box 782393, Sandton 2146

14 May 1999

Paging idly through the Star newspaper one day, last October, my eye was caught by a photograph of a North Riding resident standing proudly in his garden surrounded by the beautiful *Scadoxis puniceas* which has become his speciality with over 200,000 plants under cultivation. Apparently the poor lad fell foul of the law when he potted a few specimens and sold them at the roadside. He was set upon by

Nature Conservation officials for breaking the law by trading in a protected species without a permit and promptly charged. He now faces a court battle, the article went on to say, and could be fined R750 or be imprisoned for six months. I was horrified. As clivia is a protected species, I as a clivia grower, could be risking endless trouble by merely growing them in my garden, not to mention the added problems of actually "collecting, transplanting, transporting and selling" them without the requisite permit!

This was all discovered on a Friday evening, and when Monday morning dawned, I flew to the telephone. I called the Gauteng Nature Conservation offices - not easily, you try finding their number in the directory - and asked to speak to the Mr. Carr which the article had quoted as their spokesman. No luck. The Mr. Carr mentioned in the article actually did not work in this particular section of Nature Conservation and speaking to him would not be of any use. I was directed to another department and after a few futile calls finally came upon a young woman called Elzia Wilson. She was wonderful. She could understand my misgivings and promised to find the information in their law books and fax me all I would need to know.

Sure enough a few days later, as promised, she sent me faxes of the documents of the Directorate of Nature Conservation pertaining to the sale and export of clivias as well as general information regarding the picking, planting, selling, transporting etc of indigenous plants. She really could not have been more helpful, but the bottom line, as far as I could make out from the mass of information that landed in my lap, was simply this: "Go straight to jail - do not pass Go ......"

Being by nature, the most law-abiding of citizens, I was desperate. I went on with my quest and phoned Nature Conservation offices in Pretoria and Nelspruit and finally found that when my fledgling clivia nursery (I'm quite a newcomer to this business) was up and ready, I would have to phone a Nature Conservation Inspector to make an appointment. This official would then come and do an inspection of my premises, methods, and plants etc. and if everything passed muster, I would be given a permit to grow, sell, transport and propagate my clivias. Sighs of relief!

But then, having now become quite friendly with several of the Nature Conservation people, I chanced upon a young man called Herman Erasmus who has long been in the forefront of the battle against plant poachers all over the country. Herman, cool, calm and laid-back, put everything into perspective. He assured me I did not need a permit. I did not need to be inspected by any officials. All that was needed when I sold, donated or presented a plant to anyone would be an accompanying letter stating my name and address and telephone number as the supplier and the name, address and telephone number of the person acquiring the plants as well as the registration number of the vehicle in which the plants will be transported. This letter is to be signed by the supplier. It is advisable always to transport any clivias that you may be given or purchased in a container rather than having their tell-tale roots hanging out of the back of your car! It would certainly look far more acceptable as to the legality of their ownership.

After all the angst - it is so simple.

Keith Rose.

We are very pleased that we won=t have to visit you at >Sun City= (a nickname for Diepkloof Prison). Thank you for finding out all the information for us Keith. Ed.

..\*..

#### Clivia progress in Australia

From Michael Bertram

15 Highfield Avenue, St Georges, SA 5064, Australia.

martreb@hotmail.com

1 April 1999

Dear Meg,

Last year, I purchased some 100% yellow, yellow x Vico yellow, yellow x Vico gold, multi petalled and variegated seeds from Yoshikazu Nakamura; planting them in early March in coarse washed sand and growing them on during winter with artificial lighting and heating.

Most seedlings now have 4 to 6 leaves, some of which are 30 cm in length (mainly the Vico yellow and gold and 100% yellow stock). The variegated seeds produced about 10% variegated seedlings with some being wide and short and the others being the normal long and slender type.

I've fertilised the seedlings with a dilute "Maxi crop 100" seaweed extract and fish emulsion solution every 2 to 4 weeks during the growing season.

I have just potted the seedlings into 150 mm pots from 100 mm pots into a mixture of 25% orchid mix (15 mm to 30 mm pine bark chips), 25% coarse washed sand and 50% premium potting mix. (all "Nu earth" products). I plan to grow them on during winter in my unheated igloo.

I would like to grow various selections from around the world. Can you provide details of members (E-mail addresses if possible) who may have seeds for sale at a reasonable price. Would you have Charl Malan's e-mail address as I know he had some 100% yellow stock last year.

Do you have any copies of the conference papers from last year's meeting?

Hoping you are keeping well and that your clivias are flourishing.

Yours sincerely,

Mike Bertram.

Well, at the rate that Mike is feeding his plants they should be flowering in two years. Mike was given the names and addresses of some growers and we hope he was able to obtain some yellow seed. We hope that some of our members will contact you about seed. Editor.

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#### Success with clivias in New Zealand

mannion@xtra.co.nz

23 May 1999

Dear Meg,

I think it is time I introduced myself to the Clivia Club. For the last two years I have been an enthusiastic reader of your newsletter, thank you.

I first became interested in Clivia about 15 years ago. At that time I was running a horticultural training centre for adults with physical disabilities. We were on a field trip to Camellia breeder John Lesnie=s property in South Auckland. Apart from admiring his little fragrant camellias I commented on a group of large flowering *Clivia miniata*. As I left he pressed a couple of seeds into my hand. There began my clivia collection. Those plants now flourish on the south side of my house at Karekare on the west coast near Auckland in New Zealand. We=ve lived here for ten years, in that time I=ve had four children and have gradually built up a nursery. I am working towards a speciality in Clivia.

Before I was introduced to the Clivia Club I found it very difficult to purchase seed . Eventually in 1996 I got 500 New Hybrids from Dowe Seed Suppliers. These are now strong beautiful plants in six litre pots. Dowe have not been able to give me any information on their parent line. So I eagerly await flowers.

I am curious to know if anyone knows at what stage the pigmentation at the leaf base stops being an indicator of flower colour. Mature orange miniata are quite green right to the base.

I had a lucky break two years ago when I introduced myself to Dr Keith Hammett. That season I did his clivia pollinating with him and in return he gave me a generous portion of the resulting seed. These will form a tremendous breeding base, and are looking great potted up in my shade house. I really appreciate Keith=s generosity with his knowledge. Since then I have also bought seed from Ken Smith. I find it so rewarding with the young plants, I can only imagine how great it will be to see them start flowering.

Thank you for the information and work that goes into each newsletter.

Warm regards,

Lisa Mannion.

Thanks for your e-mail. Its so good to have news from another continent. Growing clivia is certainly a patient game - waiting to see how those special seeds are going to turn out!

The pigmentation at the base of the leaves disappears round about the second year, so try to separate your yellow seedlings from the orange ones in the first eighteen months. Good luck with your endeavours. Editor.

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#### Welcome to Clivia on Delphi Forums

James Haxton

PO Box 977, Gallo Manor 2052

23 June 1999

I recently had a strange e-mail from someone called Cathy asking me if she could use goat=s urine to fertilize her Clivia. I replied to the e-mail to advise her that under no circumstances should she try it! Cathy then suggested that I start a >forum= so that persons wanting information about Clivia could write in with their questions. She then told me how to go about it and so we now have a >Clivia Forum=.

A forum differs from a web page in that input can be given as well as being received. And it costs nothing (except on your phone bill!). It is a free page sponsored by Delphi and paid for by advertisements. At the moment the page is empty, so it is up to members to fill it by asking questions and providing information. It is open to the public and anyone can find it and use it.

The >Clivia forum= can be found at http://www.delphi.com/clivia Happy surfing and good luck!!

James Haxton.

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#### A CLIVIA GROWER=S PROGRAMME

I have enjoyed growing Clivias for twenty five years. The following is a brief description of the cultural practices I employ. This does not mean that there are no other ways of achieving success. Indeed, there are many other ways of growing Clivias as no two Clivia cranks will be unanimous on all aspects of growing their favourite plant!

**Harvesting seed**: Seed from the previous spring=s blossoms will ripen from April to July. As soon as the berry becomes soft to gentle pressure (something like ascertaining when a peach is ready for eating) it is ready for picking. This may be while the berry is still completely green. It is not essential to postpone harvesting until the berries turn colour. Remove the skin, the gelatinous pulp and the enveloping membrane from the seed. Dust lightly with a suitable contact fungicide and store in a ventilated container.

**Planting seed**: I generally commence germinating my seed some two weeks after harvesting. Some growers will do so immediately after harvesting, while others will wait for several months until ambient temperatures rise in spring. The seed is placed between moist sheets of paper towel placed in any suitable container. Follow the same procedure as in primary school when germinating beans! Place the container in a warm spot to stimulate germination. If you are really hasty for results then invest in a heated germinator specially designed for this purpose.

As soon as the seed begins to germinate, transfer it to the seedbeds. Here I use containers at least 15 - 20 cm deep. The containers are filled with 1:1 mixture of polystyrene pellets ( $\forall$  2 - 5 mm diameter) and sifted compost. Compact the substrate slightly, then place the germinating seed on the surface. Cover the seed with about 1 cm of the same mix with a thin layer of coarse sand on top. The sand will prevent the fine mix from being washed out of the container when watering with a hose. If the compost is properly prepared and heats up well during decomposition, most weed seeds and pathogenic fungi will be destroyed. Under these circumstances it is unnecessary to fumigate the compost prior to it being used in seedbeds. If however, you experience damping off of the young plantlets, then resort to either fumigation or heat-sterilisation of the compost, or use specially prepared commercial substrates for the purpose. Do not delay transfer of the germinating seed to the seedbed too long, or you will damage the growing radicle (rootlet) or the root hairs which cling to the paper towel.

Keep the seedbeds in a shady place. Keep moist but not wet or soggy.

**Planting out seedlings**: When the first leaf of the seedlings reaches a length of five to ten cm, transfer the seedlings to individual 15 cm plant pots. I prefer the tapered to the cylindrical design as it is easier to remove the young plant and soil from the pot when potting-on into larger containers. The potting mix

should approximate the medium in which clivias thrive in their natural habitat ie. the leaf litter found on the forest floor. My mix consist primarily of garden compost to which some milled pine bark has been added.

Clivias grow slowly and in their natural habitat are subjected to strong competition from other roots for available nutrients. In other words they do not need a nutrient-rich medium to thrive, but rather a loose, friable medium in which to develop. If your compost heap is not invaded by roots of nearby trees which deplete available nutrients, it will not be necessary to add any slow release fertilizer to your potting mixture. The nutrients released by the compost being converted into humus will be more than adequate for the growing plant. Many growers swear blind that foliar feeding really stimulates growth - my conviction is that this is entirely imaginary. Young plants can best be grown in dappled shade. Shadecloth with an 80% light-exclusion factor would appear to be the ideal alternative.

**Potting-on**: A year after planting out the seedlings they are ready to be transferred to 17,5 cm (7 inch) pots. At this stage I provide some drainage at the bottom of the pots. Crushed stone or brick is suitable, but heavy. Broken pieces of polystyrene make for less weight, but cinders are ideal in that they are light and provide excellent drainage. It can also be argued that cinders will contain traces of most nutrients (with the obvious exception of nitrogen) to supplement the potting mix in the event of a trace element deficiency.

In the potting-on procedure, disturb the plants as little as possible - hence the usefulness of a tapered pot. If plants are watered prior to transfer they will slip out of the pot more easily.

A further year on, the plants are potted-on to 20 cm (8 inch) pots and again one year later into 25 cm (10 inch pots). Clivias can be flowered in 20 cm pots, but larger plants will respond to the additional space provided by larger pots.

**Dividing and transplanting**: There are many old-wives tales concerning the do=s and don=t=s of dividing and transplanting clivias. One of these is that if you disturb a plant in any way it will not flower in the coming spring. Well, I have yet to experience this! Another is that pot-bound plants will flower more profusely than their counterparts having adequate room in their containers. There may be more substance to this claim but after twenty-five years it has escaped my observation!

I believe that in the warmer parts of the country, clivias can be divided or transplanted at any time during the year without detrimental results. Given the choice, however, spring and summer are preferable for these operations as the divided/transplanted plants will establish more quickly.

In the case of a single offset to be removed, disturb the plant as little as possible and gently pull the roots apart. If, however, you are dividing an old well-established plant with many growing points and the plant is pot bound as well, it is a good idea to use a jet of water from a hose to remove all the soil around the root ball, before teasing the roots apart. Where offshoots are still attached to the mother plant these should be cut off and the cuts dusted with flowers of sulphur or copper oxychloride before repotting.

#### Soil preparation

a) Texture, structure and pH: Clivias do not like wet feet, hence good drainage is essential. In the preparation of compost a sandy or sandy-loam soil should be used. More important, however, in ensuring good drainage is an open structure of the growing medium. Adequate compost and milled bark will ensure this. The pH of this mixture should be in the region of 5.5 to 6.5 which approximates that of the leaf litter in the clivia=s natural habitat.

**b) Nutrition**: As already mentioned, I do not believe in the feeding of clivias grown in a compost-rich medium. Where cultivation occurs in sand or milled bark only - where available nutrients are virtually absent, or are leached out rapidly as there are few colloids to retain them - feeding is desirable. When fertilizer is added to the growing medium a slow-release formulation such as Osmocote is recommended. Where foliar feeding is resorted to, spring applications should contain more nitrogen to stimulate vegetative growth. During summer the emphasis should be on phosphorus to strengthen growth while late summer applications should concentrate on potassium to stimulate the developing flowers. No feeding is recommended during the dormant winter months. 30:10:10; 18:18:18 and 10:20:30 or similar formulations are suggested for the progressing season.

**Watering**: Liberal watering should commence immediately the plants show signs of life in spring. This should continue throughout the growing season but be curtailed as temperatures drop in late autumn. Many growers discontinue watering completely during the winter months.

Where the texture and structure of the growing medium is ideal there is little danger of overwatering even during winter. Overwatering of plants growing in a less-than-ideal medium will precipitate root-rot. When this becomes evident remove plants from the soil and permit callus-development after treating with a suitable fungicide before repotting.

**Diseases**: Damping-off of young seedlings is probably the worst disease to contend with. As mentioned earlier this problem can be eliminated by using a pathogen-free germinating mix. Some plants seem to show a predisposition to fungal attack of the foliage. This problem is best overcome by a strict selection in the breeding programme. No plant is worth constant pampering and treatment - no matter how special it is! Another problem which may be encountered is the appearance of rust pustules on the underside of the leaves. This will occur when particularly humid conditions prevail. Improved ventilation will remedy the situation. Treatment of affected plants with a systemic fungicide (eg Funginex) will prevent spread of the disease, but affected leaves will remain unattractive. Occasionally in late summer plants will simply topple over and, on closer examination, will have rotted off at ground level. Only a small percentage of plants will be thus affected and, upon dusting with a suitable fungicide and callousing for a period can be successfully repotted with minimal setback to the plant.

**Pests**: By far the greatest problem is the amaryllis borer. Several generations of moths will oviposit on the underside of leaves of both young and adult plants per year. If left untreated the larvae will tunnel down in the leaf and in severe infestations completely destroy the corm. From early October until late April plants should be inspected several times a week. The tell-tale sign of sub-laminar tunnels indicates immediate treatment with a suitable insecticide (eg chlorpyrifos or carbaryl). A full cover spray is essential. Choose an insecticide with low mammalian toxicity which will degrade rapidly thus limiting pressure on the environment to a minimum. As even light infestations can do considerable cosmetic damage, you have to intercept the borer at an early stage. Many growers apply prophylactic treatments throughout the summer months, but this is superfluous provided the grower is on his toes.

Mealybugs can be a nuisance and disfigure the emerging leaves as the insects are particularly populous in the leaf sheaths. To ensure that the insecticide (eg chlorpyrifos or carbaryl) penetrates between the leaves at the base of the plant add a spreading agent which reduces the surface tension of the spray liquid thus promoting penetration. A repeat treatment some seven to ten days later is recommended.

#### THE CLIVIA CALENDAR

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Thank you very much for this very comprehensive guide to clivia cultivation. Anyone who follows this to the word can only have successful clivias! The author does not wish to be identified, but is from the highveld. Editor.

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#### THE LILY BORER - Brithys crini pancratii

The following articles were submitted by Pieter Oosthuizen and give us more detail about our friend the Lily borer. The information comes from articles found in the National Insect Collection and were written some years ago so they may be outdated especially regarding the insecticides. Cypermethrin is more environmental friendly than chlorpyrifos which is not recommended for wild life.

Pieter was able to bring a specimen of the moth from the National Insect Collection to the Northern Branch Clivia Club meeting in Pretoria in May so that members could see what it looked like. The specimen was properly mounted with its wings spread out and the white hind wings could be seen very clearly.

#### 1 LILY BORER Brithys crini pancratii

Plants attacked Amaryllis, Crinum, Cyrtanthus, daffodils, Haemanthus, Nerine

Identification. The conspicuous larvae, 40 mm long when fully grown have transverse yellow and black bands around the body. The young larvae feed in groups and tunnel into the leaves and may afterwards even feed on the bulbs. With severe infestations entire plants may die. They are troublesome from September to April.

Control. The larvae may be squashed by hand or alternately one of the following insecticides may be applied when the pest is present: cypermethrin, deltamethrin or trichlorion.

(de Villiers, WM. & Schoeman, AS. 1988. *The layman=s guide to garden pests and diseases in South Africa*. Cape Town: Struik.)

#### 2 Lily borer - Brithys crini pancratii

The lily or crinum borer is widespread in Africa and southern Europe. The adult is of moderate size with a wingspan of about 40 mm. It has black and white stripes at the ends of the legs, and the thorax and forewings are mostly dark brown to blackish with paler areas towards the wing tips. By contrast, the hindwings are an almost pure white. The larva of the lily borer is a very distinctive insect, 40 mm or more in length when fully grown, with a boldly patterned body. There are 11 bands of yellow alternating with black and the yellow areas comprise a series of large coalescing dots arranged on divisions between the abdominal segments and occupying most of the first two segments of the thorax.

The adult female lays groups of up to 40 eggs on leaves of the host plant in early spring and the young larvae feed in groups and mine into the leaves. As they mature they move into the base of the leaves and may later feed on the bulbs. Entire plants can be killed and daffodils and amaryllis bulbs destined for local and overseas markets are often ruined. Heavy infestations may occur from September to April. and amaryllis flower heads may also be attacked. Other hosts include the nerine, crinum, cyrtanthus, and haemanthus. Curiously, lilies are not attacked and the common name of the insect is thus a misnomer. There are apparently several generations per year, although development slows down considerably during winter. The larvae may overwinter in the bulbs. It is not known where the insect pupates, but as no pupae are found in the bulbs it possibly pupates in the soil.

Commercial producers of bulbs resort to weekly sprays of contact insecticides to control this pest. The home gardener is advised to look for the discoloured feeding patches on the leaves in summer and then to crush the young larvae before they mature and seriously damage the plants. Otherwise, heavily infested leaves may be cut out and destroyed.

(Annecke, DP & Moran, VC. 1982. Insects and mites of cultivated plants in South Africa. Durban: Butterworths.)

I was not aware of the fact that Lily borers also attacked daffodils. Have any other members had this experience? Since recently spraying everything in my garden (and the neighbours) which I thought belonged to the Amaryllis family, I found hundreds of Lily borer larvae chomping away on my Zephyranthus alba plants. They have spiky leaves, so the worms were dangling on top of them and actually looked quite pretty until I discovered what they were. No wonder they were not flowering! Editor.

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#### ACTIVITIES OF CLIVIA CLUB BRANCHES IN SOUTH AFRICA

#### Cape Province Branch Clivia Club

1 April 1999

Just a short report from our group here down south.

We had a very pleasant meeting at Kirstenbosch on 13 March. We did not have a speaker but it was time for swapping information. Many questions were asked and different members answered these and it was surprising how many questions were asked. This shows the keen interest in growing Clivias. After the

meeting refreshments were enjoyed and then John Winter gave us a very interesting slide show all of Japanese flowers. This was enjoyed by all members.

After the meeting trading went on and many plants changed hands. Prices were very competitive and many members went home all smiles with their purchases. Six new members joined.

On 20 March Kirstenbosch held their annual sale of plants and bulbs. This sale took a completely different form this year. An entrance fee of R5 was charged. It was a very busy day. We as a group hired a stall and many plants changed hands. The prices were very reasonable and the interest overwhelming. Hundreds of plants changed hands. The sale lasted over two days, Saturday and Sunday and 14 new members joined the club.

Please note our show dates for this year: 18, 19, 20 and 21 September. We envy you people in the north with all your rain as it is very dry and hot here in Cape Town.

Gert Wiese.

Members will be saddened to hear of the sudden passing of Peter Jennings. Although not a Clivia grower, he was well known to members of our branch for his unwavering support of Toy=s enthusiastic involvement and for his kind, gentle and friendly nature. Our love and support to you, toy, in your bereavement. We too will miss him.

The branch has a number of activities planned:

- The next general meeting will be held at the Goldfields Centre at Kirstenbosch on Saturday, 14
   August (not 7 August as originally planned because 9 August is a public holiday).
- Committee members will be visiting **GEORGE** and a meeting will be held in the home of Ian and Geraldine Vermaak on **Saturday**, **31 July** from 09:00. John Winter will give a talk on growing Clivia, there will be a question and answer session, each member at the meeting will be given a *Clivia miniata* var. Citrina seedling, plants will be available to purchase and there will be a raffle with a 1st, 2nd and 3rd prize of a flowering size *C. miniata* yellow. For further particulars please telephone Ian on (044) 873 4122
- The Committee is busy planning for the September show, establishing classes, identifying judges and encouraging members to exhibit.
- The Clivia Yearbook 1998 incorporates the papers presented at the Second International Clivia Conference held at Kirstenbosch in September 1998. The yearbook, edited by Claude Felbert, John Winter, and Mick Dower, is shortly to be posted to all members.

John Winter.

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#### Northern Branch Clivia Club

The meeting held on 29 May at the Herbarium of the National Botanical Gardens was attended by 70 plus members. Our guest speaker (fortunately) did not show up and we had to fall back on questions which members raised at the March meeting. The question and answer session turned out to be a huge

success. Among other topics we had long discussions on strategies to raise seedlings, ways to distinguish between *C. Gardenii*, *C. Caulescens* and *C. Nobilis*, and how clivia absorb nutrients via the roots and leaves. Thank you to Connie Abel, Frikkie Marais and Hannes Robbertse for their introductory comments which set the ball rolling and initiated spontaneous discussion and further questions. It seems that the format of the >question and answer= session is a winning recipe.

As usual new members attending their first meeting were surprised with a gift of a one year old yellow seedling. We once again had a raffle and this time Ben Smit was the winner of a yellow flowering clivia donated by Pat Gore.

The two new members who joined the Northern Branch committee are really live wires. Sarel Naude has taken over most of the secretarial functions and is also working hard on developing a web site for the branch. Eventually we hope that this initiative will develop into a web site for the Club with links to the various branches. Suggestions for the web site can be forwarded to him at sarel.naude@sita.co.za Sarel is also currently busy scanning all the Clivia Club=s newsletters and compiling an index. Wimpie van Rooy is helping with our campaign to advertise the shows at a national level. Many thanks to Tino Ferero, Elda de Witt, Nick Primich, Jim Holmes and Steven Levers who have contributed by preparing articles for magazines.

The Northern Branch Show will be held at a different venue this year at the Menlo Park Primary School on Thomas Edison Avenue, Menlo Park, Pretoria. Members of other branches are welcome to join us at the show. We have space available for members who wish to sell seeds or plants. A commission of 15% should be paid to the Northern Branch. If you have any interesting plants please bring them along too. Please contact Frikkie Potgieter at (012) 335 4590 should you need further information about the Northern Branch Show. If you need accommodation at the National Botanical Gardens please contact them at (012) 8043200. The price is R65,00 per person per night.

Our next meeting is at 14:00 on 24 July 1999 at the Herbarium of the National Botanical Gardens.

Chris Vlok.

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#### SHOW DETAILS

Three clivia shows will be held during September 1999 in Pietermaritzburg, Pretoria and Cape Town. The details of the shows are as follows:

#### Pietermaritzburg Show

Date:	4-5 September 1999					
Venue:	Royal Agricultural Show Grounds					
Times:	Saturday 4 September 11:00 - 16:30, Sunday 5 September 10:00 - 15:00					
Entrance fee:	R5,00					
Contact persons:	Sean Chubb (0325) 81978 or Val Thurston (0322) 41316 (after hours)					
Plant and soud sales	slide shows and domonstrations					

Plant and seed sales, slide snows and demonstrations.

#### **Pretoria Show**

Date:	11-12 September 1999
Venue:	Menlo Park Primary School, Thomas Edison Ave., Menlo Park, Pretoria
Times:	Saturday 11 September 09:00 - 16:00, Sunday 12 September 10:00 - 15:00
	Plants for showing must be entered before 07:00 and can be delivered on Friday evening. Plants and seed for sale must be brought in before 08:00.
Entrance fee:	R5,00, children under 12 free
Contact person:	Chris Vlok - tel W (012) 429 6023; H (012) 998 5942; fax (012) 429 3221 or e-mail vlokac@alpha.unisa.ac.za

Plants, including yellow-flowering clivia, can be won as prizes. Watch the local press for details on times of the prize-giving, slide shows, and talks and demonstrations on clivia. Plants and seed will also be on sale.

#### Cape Town Show

Date:	18-21 September 1999				
Venue:	Sanlam Hall, Kirstenbosch				
Times:	09:00 - 17:00				
Entrance fee:	R3,00, children under 12 free and pensioners free on the Tuesday				
Contact person:	Joy Woodward - (021) 762 1166; fax (021) 797 0002 or e-mail woodward@nbict.nbi.ac.za				

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#### **OBITUARY - Peter Jennings**

We heard that Toy Jennings (our Public Relations Secretary before she moved to the Western Province) lost her husband Peter on 18 June 1999. He suffered a stroke and was recovering when he suddenly passed away.

He cheerfully encouraged Toy with her Clivia and his handiness made many a clivia stand, and he helped Toy to care and tend her plants. Many Club members knew him through their dealings with Toy. He was very much part of the team. Our deepest sympathy goes to Toy and her daughters whose loss is inestimable.

Meg Hart.

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#### **MEMBERSHIP DETAILS**

#### New members as at 18 June 1999

#### Australia

Mr John Alsop, PO Box 370, Mandurah, WA 6210, Western Australia Mr B Dale, Lot 192 Mt Glorius Rd, Highvale, Q 4520, Queensland RSA

Eunice Basson, Posbus 55396, Arcadia 0007, Pretoria, Gauteng Danie Bester, Posbus 920, Oudtshoorn 6620, Western Cape Jean Bezuidenhout, Posbus 55957, Arcadia 0007, Pretoria, Gauteng Johannes & Linette Bisschoff, Posbus 132, Masingita 0832, Giyani, Northern Province Anna Burger, Posbus 72061, Parkview 2122, Johannesburg, Gauteng Aidan & Debbie Butler, No. 1 Forest Place, Pinelands 7405, Cape Town, Western Cape Coen Calitz, 14 Water Road, Rozendal, Stellenbosch 7600, Western Cape Lynne Darge, 81 Strubens Road, Observatory 7925, Cape Town, Western Cape Basie Dreyer, Posbus 74509, Lynnwoodrif 0040, Pretoria, Gauteng Dalene du Plessis, 59 Sandown Road, Rondebosch 7700, Western Cape Dawid & Christa Durand, Posbus 10528, "The Falls@, Benoni 1522, Gauteng Rob & Theresa Egers, 17 Belvedere Road, Claremont 7700, Cape Town, Western Cape Griet & Pierre Erasmus, Posbus 6020, Welgemoed 7538, Western Cape Petro & Adolf Fanfoni, Posbus 58804, Karenpark 0118, Pretoria, Gauteng Ann & Ken Gass, 36 Esme Road, Newlands 7700, Cape Town, Western Cape Gerry & Thyra Gilbert, PO Box 2543, Pinegowrie 2123, Gauteng Jeremy & Michele Goble, PO Box 366, Maidstone 4380, KwaZulu/Natal Graham Goodwin, PO Box 191, Kelvin 2054, Sandton, Gauteng Tom Haylett, 4 Wedgewood Close, 14A Athens Rd, Bloubergrant 7441, Cape Town, W Cape Dirkie & Bernard Herholdt, Bus 2778, Bloemfontein 9300, Vrystaat Aleth Human, PO Box 2093, Dundee 3000, KwaZulu/Natal Hottie Human, PO Box 441, Durnacol 3082, Dannhauser, KwaZulu/Natal L James, 108 Grosvenor Square, College Road, Rondebosch 7700, Cape Town, Western Cape Jeanne & Patrick Johnson, 18 Baraco Cres, Northpine, Brackenfell 7560, Cape Town, W Cape Winston Johnson, 17A Smith Road, Bedfordview 2007, Gauteng Liz & Don Keth, 4 Tudor Road, Tokai 7945, Cape Town, Western Cape Cerneels Kriel, Pasteurstraat 13, Chrismar, Bellville 7530, Western Cape Bruce Lakie, 22 Boshof Avenue, Newlands 7700, Cape Town, Western Cape Chris Lötter, Posbus 17, Kuilsrivier 7580, Western Cape Adèle & Paul Maré, No. 4 The Steps, Parenboom Grove, Newlands Ave, Newlands 7700, CT Maureen & Robert McJannet, PO Box 101, Simonstown 7995, Western Cape Jan Moeken, Posbus 5609, Weltevredenpark 1715, Gauteng Bert & Tinkie Muller, Posbus 904, Phalaborwa 1390, Northern Province Harry Müller, Kahlerstraat 64, Stellenbosch 7600, Western Cape Ron Nieuwenhuizen, PO Box 2086, Durbanville 7551, Western Cape Brenda & Etzel Nuss, PO Box 336, Hilton 3245, KwaZulu/Natal Ken & Ursula Peall, 133 Churchill Road, Plumstead 7800, Cape Town, Western Cape Mariette & Arne Pitlo, 1 Hill Rise, Pinelands 7405, Western Cape Annelien Rabie, Posbus 38608, Pinelands 7430, Cape Town, Western Cape Mike & Jackie Ruane, PO Box 73816, Lynnwoodridge 0040, Pretoria, Gauteng Sean & Natasha Schickerling, Cognestraat 8, Brackenfell 7560, Western Cape Jeff & Jenny Singer, 66 Forest Drive, Pinelands 7405, Cape Town, Western Cape Elsabé & Jack Smit, Magaliesbergstraat 32, Winchester Hills 2091, Gauteng Heilene & Japie Steenkamp, Posbus 34, Brits 0250, Northwest Province Pieter & Mientije van den Berg, Posbus 593, Montanapark 0159, Pretoria, Gauteng Hans van der Heden, 13de Laan 418, Rietfontein 0084, Pretoria, Gauteng Dirk & Vivienne van der Merwe, Posbus 2231, Nylstroom 0510, Northern Province Mercia van der Merwe, Florida 13, Durbanville 7550, Western Cape Ella J van Vuuren, Posbus 470, Rant en Dal 1751, Krugersdorp, Gauteng Brenda & Andre Visagie, PO Box 73233, Lynnwood Ridge 0040, Pretoria, Gauteng

Ken & Felicity Wyman, PO Box 156, Southfield 7880, Western Cape

#### Thailand

Kobsukh Kaenratana, 102/33 Soi Sukhaprachasan, 2 "Chaengwattana Rd, Pakkret" Nonthaburi 11120

#### **United States of America**

Keith Portka, 201 Allegheny Avenue, Cheswick, PA 15024, Pennsylvania

#### Address changes as at 18 June 1999

#### RSA

Robbie Botes, PO Box 1277, Allen's Nek 1737, Gauteng

Robert Kirsner, 98A Kloof Road, Sea Point 8001, Cape Town, Western Cape

(Robert Kirsner was previously from Los Angeles, USA)

Anthony Knipe, 6 Windsor Court, Edgemead 7441, Cape Town, Western Cape

APG Truter, Fullardstraat 18, Swellendam 6740, Western Cape

Gienie J. van Rensburg, Weitzstraat 37, Universitas 9301, Bloemfontein, Vrystaat

#### Zimbabwe

Piet Hougaard snr., 26 Paarl Road, Mabelreign

#### New e-mail addresses as at 18 June 1999

#### RSA

Eunice Basson, Pretoria, Gauteng	bassoel@alpha.unisa.ac.za
Jean-Luc Bestel, Pietermaritzburg, KwaZulu/Natal	bestels@netactive.co.za
Johannes & Linette Bisschoff, Giyani, Northern Province	gycaltex@mweb.co.za
Robbie Botes, ?, Gauteng	rtsbotes@intekom.co.za
Leslie Burgess & Bobby Richter, Cape Town, Western Cape	brichter@pcm.co.za
Coen Calitz, Stellenbosch, Western Cape	cjc1@maties.sun.ac.za
Roland & Lynette Dam, Kempton Park, Gauteng	abbrick@mweb.co.za
Dalene du Plessis, Belville, Western Cape	dalened@bjm.co.za
Jenny & Johann Faurie, Kempton Park, Gauteng	johannf@absa.co.za
Gerry & Thyra Gilbert, ? , Gauteng	gg13@mweb.co.za

Jeremy & Michele Goble, Maidstone, KwaZulu/Natal	gobes@mweb.co.za
Graham Goodwin, Sandton, Gauteng	ggoodwin@global.co.za
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Hottie Human, Dannhauser, KwaZulu/Natal	dncd.dncpo.hottieh@iscorltd.co.za
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#### ..\*..

#### FOR SALE

#### From the Clivia Club:

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.

**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.

**ATHE 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  $\forall$  3 weeks for printing. Cheques to be made out to VA Thurston.

New address: Val Thurston, PO Box 3181, Westbrook 4400, S.A. Tel. (0322) 41316 after 4pm.

*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.

*Clivia miniata* F<sub>1</sub> (yellow x orange), Apinks@ and pastels, flowering size @ R12 plus postage and packing. *Clivia miniata* yellows, flowering size @ R150 plus p&p. Order <u>now</u> for this year=s flowering season. Dries Bester, Box 75, Levubu 0929. Telephone/Fax (015) 583 0299.

*Clivia miniata* - cream, yellow, apricot, orange pink, red and pastels - flowering August/September. Contact Bing Wiese, Pretoria (012) 46 6382 to view.

**Proceedings of Second International Conference** held at Kirstenbosch in September 1998 is now available on VIDEO. Please enquire from John Winter; Tel 021 762 1166; Fax 021 797 0002; e-mail <u>winter@nbict.nbi.ac.za</u>

#### **BEGINNER=S LUCK**

*Clivia miniata* growing in the wild are found in areas where there are considerable variations in summer and winter temperatures. These cold winters are apparently necessary for the plants to flower successfully. Cold also helps to produce longer scapes and commercial growers in Europe induce scape elongation by submitting clivia plants to periods of cold (de Smedt, van Huylenbroeck & Debergh 1996: 71). *Clivia miniata* growing along the KwaZulu/Natal coastal strip do not flower as well as those found further inland. They also do not necessarily flower in the spring. Along this coastal strip temperatures are more equable and winters mild due to the effect of the warm Mozambique current. Inland the winters are more severe and frosts occur. As clivia growing in the wild are usually found in areas under trees they are often protected from these frosts.

For successful flowering it is necessary to simulate the natural conditions in which clivia usually grow. Clivia growers wishing to have good flowers should therefore expose their clivia to a certain degree of cold in winter, but at the same time protect them from frost which can damage the leaves. Val Thurston (winner of >Best on Show= at the KwaZulu/Natal show last year) lives on the coast sends her plants up to Des Andersson in Pietermaritzburg, approximately 90 kilometres inland, so that they will flower in time for the show. Wild *Clivia miniata* are also accustomed to a period of winter drought so do not overwater clivia in the wintertime.

(de Smedt, V, van Huylenbroeck, JM, & Debergh, PC. 1996. Influence of temperature and supplementary lighting on growth and flower initiation of *Clivia miniata* Regel. *Scientia Hortculturae* 65: 65-72)

Meg Hart.

..\*..

#### ON THE COMPOST HEAP

I hope that you will respect me a bit more now that you know my proper scientific name! I also did not know that I was found as far afield as southern Europe.

Please refer to the Clivia Calendar and note that it is now time to harvest, germinate and plant seed. The fresher the seed, the more successful the germination.



Although the editor thinks I am hibernating, Adri recently found a very plump relative of mine on her Crinums. I am thinking of trying out the daffodils when they start flowering in spring.

Lily Borer (Brithys crini pancratii).

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..\*..

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# US\$20.00 (or equivalent) p.a. overseas R60,00 p.a. RSA Volume 8 Number Three Spring 1999 CONTENTS ^ verander/delete bladsvnommers EDITORIAL 3 Thank you Wessel Lötter......7 Terminological warfare INDEX OF ARTICLES PUBLISHED IN THE CLIVIA CLUB NEWSLETTER SINCE 1992 ACTIVITIES OF CLIVIA CLUB BRANCHES IN SOUTH AFRICA

# PO Box 74868 Lynnwood Ridge 0040 South Africa

# Clivia Club

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	*	

..\*..

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

### ..\*..

## NOTICE OF ANNUAL GENERAL MEETING

Notice is hereby given that the ANNUAL GENERAL MEETING of the Clivia Club will be held on Friday, 17 September 1999 at Kirstenbosch National Botanical Gardens, Cape Town.

Venue GOLD FIELDS EDUCATIONAL CENTRE

Date 17 September 1999

Time 18:30

All members are invited to attend this important meeting at which a new committee will be elected for the ensuing year.

Refreshments will be served after the AGM.

Tino Ferero

CHAIRMAN

#### AGENDA

- 1 Welcome and apologies
- 2 Presentation of annual financial statements
- 3 Report by Chairman
- 4 Election of new committee
- 5 Subscriptions for 2000
- 6 General

QUERIES? Please contact Joy Woodward. Tel: (021) 762 1166 Fax: (021) 797 0002

#### EDITORIAL

I am sure you were all delighted with the Clivia 1998 Yearbook which arrived with your last copy of the Newsletter. It was well worthwhile waiting for and the quality and reproduction of the photographs is excellent. It makes it so much easier to envisage the various clones, cultivars and hybrids which are mentioned in newsletters. Congratulations to the Cape Branch and the team that compiled the yearbook. AGrow Clivia@ is the newest of the AGrow@ series publications to be released soon by the Botanical Society and details about this are inside.

..\*..

At the recent Northern Branch meeting of the Clivia Club held in Pretoria in July the casual observer could not but note that in the packed hall which had members standing round the walls for lack of space, a substantial majority were not only men but were middle-aged and retired men. This leads one to speculate that clivia growing and the Clivia Club has captured the selective imagination of many retirees and older enthusiasts. One wonders why this is so? And one wonders what the role the Club and the Newsletter have played in developing this interest among this group?

It seems reasonable to suggest that growing clivias satisfies a whole range of interests. They are easily propagated and can be grown at any scale with remarkable specimens being found in collections all over South Africa and in all corners of the world. They are spectacularly beautiful flowers which are relatively long lasting. But perhaps of greatest interest is the variety of strains and cultivars which have emerged and the eagerness with which growers and collectors seek the unique and the unusual, whether it be leaf type, flower colour, umbel shape or hybrid. Certainly, if future meetings continue to attract hundreds of enthusiasts and if even a small proportion of these actively follow through their interests and become growers, not only will the Club and its publication continue to expand, but it seems most probable that South Africa will begin to emerge as an even more important site for propagation and experimentation.

In this edition of the Newsletter Nick Primich continues the lively debate on terminology which Bill Morris contributed to in the last newsletter. Both are knowledgeable growers, and members will no doubt derive considerable pleasure (and amusement) from these goings on! Such watchdogs are a great asset to our club, keeping us as they do on our toes where terms and descriptions are important. Wessel Lötter contributes to this discussion. Bill Morris comments on several issues which were mentioned in the last newsletter. James Abel has something to add to the discussion of the properties of velamen and Etzel Nuss is looking for pollen or seeds of a specific yellow clivia.

Another article appears in this edition which has come from Claude Felbert in which he deals with the complexities of photographing specimen flowers at shows and in the wild for publication. We are grateful to Sarel Naude for compiling an index of all the articles that have been published in the Clivia Club Newsletter since its inception. This will enable members and others to follow research and debates as they have been developed and concluded over the years. One such contributor who appears again and again is Bill Morris from Australia whose contributions are greatly appreciated and who, we hope, will continue to provide lively interest and information. Should any articles have been omitted please let us know what you think should be added.

The Witwatersrand National Botanical Garden at Krugersdorp has long been the centre of interest for ornithologists who go there to see the Black Eagles nesting next to the waterfall. About a year ago the male disappeared and was never found. A young male filled his place shortly afterwards and there is now a downy white chick in the nest. It is well worth a climb to the top of the ridge to have a peep at it. Members of a Raptor Club make detailed observations on the birds and generously allow the public to view the birds through their telescopes. Apart from ornithological and other botanical interests there is a large patch of *C. gardenii* which can be seen flowering in autumn and there is now a spectacular display of *Clivia miniata* growing under indigenous trees along the forest walk on the hillside of the valley and along the river walk. Although they have only been introduced in recent years they are flowering well and certainly deserve a visit.

Val Thurston has requested members who have colour coded their clivia, particularly the Howick Yellow, Watkin=s Yellow, Transkei Yellow, Eshowe Yellow, de Villiers=s Yellow and Noyce=s Yellow, to let her have the information so that she can fill in the RHS colours of the relevant clivia in her book.

This time of the year coincides with the flowering period of clivia in South Africa and as a result the shows and visits to clivia gardens in various parts of the country will take place. Each year there are bigger and better and more spectacular specimens to be seen, so do try to attend. The Annual General Meeting of the Clivia Club will be held in the Cape for the first time but it will not be conducted according to the new constitution as this still has to be finalised. The Cape Province Branch will be holding an auction of interesting plants on the Saturday 18 September.

Welcome to all the new members. We hope that you will become as enthusiastic as we are.

Meg Hart.

..\*..

#### FROM THE COMMITTEE

Chairman

#### Clivia Yearbook 1998

On behalf of the committee and all the members of the Clivia Club I want to congratulate John Winter and his Committee and Branch for the superb Clivia Yearbook they have produced. Congratulations have been coming in from all parts of the world and everyone is extremely proud of such a quality publication. We are keenly looking forward to similar high quality Yearbooks in the future.

#### Committee members not standing for reelection

Four members of the central committee, namely Adri Haxton (Membership administrator), Elda de Witt (Public relations secretary), Koos Geldenhuys (Treasurer), and I have decided not to make ourselves

available for reelection at the Annual General Meeting to be held on 17 September in Cape Town. On behalf of all of us we wish to thank all the members who have made our term of office a pleasure.

I also wish to express my gratitude to my committee for all the time and effort they have put into Club matters.

We as outgoing committee members wish to extend our best wishes to the incoming committee to be elected at the AGM. We trust the Club will grow under their guidance and leadership.

Tino Ferero.

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#### Membership Administrator

The concerted efforts of the branches to recruit members has led to many new members joining

the Clivia Club during the last three months. Membership now stands at 610. Here are some interesting statistics. In 1994 when member=s names were first captured on the computer there were 210 subscribers. This means that membership has increased threefold in the last five years. The total number of people who have been subscribers since the inception of the club is 1002, indicating that approximately 400 members have >been lost=. This is due to various reasons: some have voluntarily pulled out of the Club, some have not yet renewed their membership and a few have died.

Adri Haxton.

--0--

#### Editor

As I retire from Unisa at the end of September, my fax and e-mail numbers at Unisa will cease to exist. Members can contact me at home or on e-mail at hartmh@mweb.co.za

Much time and effort is involved in organising the various facets of a club. Members phone committee members at all times of day and night for queries about clivia and there is a great deal of correspondence to be done. Koos Geldenhuys has been on the committee since 1994, Adri Haxton since 1995, Elda de Witt since 1996 and Tino Ferero since 1998. We thank them for their contributions and hope they will enjoy the extra leisure available to them.

Meg Hart.

..\*..

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#### CORRESPONDENCE

Thank you

From Toy Jennings

16 August 1999

Thank you for all the expressions of sympathy received from the Clivia family and friends. Your prayers, flowers, visits, hugs, telephone calls and words of encouragement are sincerely appreciated. It made our sad loss easier to bear.

..\*..

Bless you and yours,

Toy, Joan and Wendy Jennings.

Strine to strain

From Nick Primich

PO Box 6240, Westgate 1734

27 July 1999

I really do not understand Bill Morris=s second attempt to criticise my article on terminology. He seems to be at odds with himself in his second comment on yellow clivias. If not, then perhaps he could explain what a few red blotches or speckles do to the colour of a yellow flower if they do not change the colour?

There is not, and Bill Morris knows it well, more than one clone of ANatal Yellow@. There is no ANatal Yellow A@, nor AB@ nor a AC@, nor any other variation. There are always slight variations in any clone with a high membership, or of a goodly age, but these differences are minute. The plants of Cynthia Giddy which are clonal with ANatal Yellow@, have never been identified, and nobody knows what she really did with them.

Dividing the yellows into two arbitrary groups which include mythical and nonexistent plants really helps no one. What it does do, is to perpetuate the usage of these non-existent plant names, and encourages the usage of loose nomenclature and terminology in the Club.

We speak, read and write English in this newsletter. To the best of our ability at any rate. We do not speak Botanese or Biologian, at least not yet. Thus when we need to define a word we go to a dictionary of the English language. In the UK the most popular dictionaries are Chambers and Collins. The Oxford English Dictionary is little used, but is the only true historical dictionary. The USA favours Webster and Funk &Wagnall. The RHS Dictionary of Gardening is an encyclopaedia and not a dictionary. Its only interest is gardening, and not defining the meanings of English words. Yet I do not dispute the meaning given by Bill. I include it in the wider definition that I have already given. What I will dispute is that the term is in its genealogical sense is confined to gardening. We deal with plants in the wild as well, and are not limited to horticulture. Thus we could find ecobotanists saying AThe strain of Scots Pine with the silvery needles is now confined to the northern mainland@, or something similar. Nature has not been excluded from any of the following definitions. I have excluded all obsolete and archaic references.

The following dictionaries define a >strain= as:

#### Funk & Wagnall (1958):

Line of descent, or the individuals collectively in that line; race; stock.

#### Chambers (1990):

Breed, race, stock, line of descent.

#### Longman=s Illustrated Dictionary of Botany (1984):

A reproductively isolated population whose individuals have identical genotypes over many generations and show phenotypic differences from other populations.

There are many more of these in a similar vein which one may peruse at your local library. None of them exclude Mother Nature as the gardener.

Enough, it seems I have been here before!

Nick Primich.

I know too little about genetics to comment on the differences between Natal Yellows >A=, >B= and >C=. I=II leave this to the experts. As Wessel Lötter initiated the naming of Natal Yellows >A= and >B=, and as he has done much research on their genetics, it is appropriate for him to clarify the discussion in Nick=s letter. Editor.

--0--

#### Terminological warfare

By Wessel Lötter

PO Box 48520, Hercules 0030

31 August 1999

I agree that there is only one >Natal Yellow=. The symbols >A= and >B= were merely used to point out that there is another plant which is not clonal with >Natal Yellow= but of the same genotype. These plants are also known as >Giddy Yellows=.

Cynthia Giddy exported many offshoots of her yellow clivia plants overseas and some South Africans have also obtained yellow clivia from her (Shaun Chubb, Norman Weitz and Tino Ferero, to name a few). Kirstenbosch also has some of her clones. The plant presented by her to Kirstenbosch was named >Natal Yellow=. See Graham Duncan=s article in *Veld & Flora*, September 1985. The only aspect that has never been established is where her plants originated from.

I am of the opinion that garden collections as such cannot be placed under any one group and I am preparing a letter to explain the differences between two of the known different clones which were in the collection of Cynthia Giddy.

Wessel Lötter.

We look forward to Wessel=s next letter and hope that his research leads to greater insight into these Natal Yellows. Editor.

..\*..

Of strains and clones and cultivars and colour charts and things

#### (Comments on Winter 1999 Newsletter items)

From Bill Morris

PO Box 17, Medowie, NSW 2318, Australia

29 July 1999

Dear Meg,

I have just received my Clivia Yearbook and I am writing immediately to congratulate the Clivia Club and particularly Messrs Felbert, Winter and Dower for an excellent production. I am sure this production and subsequent ones will be very well received by members and the general public and will be a great help in producing new members and increasing interest in our favourite plants. My only criticism is the continual use of the word Ahybrid@ for the various select clones or cultivars of *C. miniata* illustrated in this publication.

There is no evidence that these or other obvious miniatas contain genes of any other species. Pierre de Costa=s article in the Year Book on the history of Clivia in Europe does not mention the use of other species in the breeding of miniata strains. Although he mentions *C. X cyrtanthiflora*, described in 1869, he then says AMany new varieties of *C. miniata* were introduced at the Expositions held between 1873 and 1878.@ This shows that select cultivars or forms were being bred at that time and these were unlikely to contain nobilis which had only been crossed with miniata a few years earlier.

If the select flowers were simply called new or select forms or cultivars it would not have been necessary to describe the other (true) hybrids as Ainterspecific hybrids@. I suggest the Clivia Club accepts the RHS definition of hybrid as a cross between two species and forgets the wider contentious use of the word. To enable the society to register new cultivars and hybrids I suggest you follow the Orchid <u>hybrid</u> list and the Bromeliad <u>hybrid</u> list and other such lists and restrict the word hybrid to plants containing genes from more than one species.

At the same time as I received the Year Book I received my Winter 1999 Newsletter. I would like to say that I am very aware that Vico Yellow and Vico Gold were both raised in Switzerland by Sir Peter Smithers. The reason I did not list them under Switzerland was that part of my reason for breaking up the Group 1 Yellows under various countries was so that growers wherever they were, if they bought seeds from Japan labelled Agood yellow x Vico Yellow@ (for example) they would know what group they belonged to. As Vico Yellow and Vico Gold have been used extensively for breeding in Japan, but not in Switzerland, I thought it better to list them as I did. Perhaps, more accurately, I should have listed them with the Kewensis strain under the United Kingdom.

I also noted in the editorial that you described Vico Yellow and Vico Gold as, Aare both grexes@, which of course is incorrect. They both belong to the same grex which was produced by crossing x >Kewensis Cream= x >Kewensis Orange Clone=.

Listing both plants under Japan was not meant to imply they originated there, no more than listing AFlowerdale Yellow@ (old name Aurea) under Australia implies it originated in Australia. >Col Pitman= in fact was raised in Australia from imported European seed (strain unknown) and you will note I had no entry on my list for European yellow plants as I had too little information regarding European plants.

The list was meant to assist breeders of these plants and was not intended to list geographic origins.

I was interested in the comments regarding colour and the RHS colour chart. I do not have and don=t (won=t) use it. I agree with you that it is far too expensive and in my opinion far too complicated. I wonder

how many flowers always flower true to their original RHS colour chart description? Next I think they are useless to most people because if I tell someone that the colour of a flower is 158B they have no idea of the colour I mean. It only means something if they also have a set to look at. Next most people only have a very broad idea of colour. Most men are very poor at colour identification. Also they tend to have only one idea of each major colour and almost none of various shades or verifications.

What I use is an American colour chart which was published in the book AExotica@. The book is much too long to carry around but I found that modern colour copying can reproduce this chart remarkably well so I have a copy on cardboard that I carry around with me. The advantages of this chart is that it deals in colour names (standardised) not letters and numbers. People can recognise the names, even if their ideas of the colours may still not be very accurate. If someone asks me AHave you got a <u>really</u> red clivia?@ I can tell them that, according to my colour chart, the colour is Ascarlet@ or even deeper Abetween scarlet and cherry@. No one wants the colour described in more detail than this, particularly when you take the variation in colour and people=s ideas of colour into account.

Finally, I agree with Robin Holmes about recording colour of plants awarded or even prize winners, if photographed for publication, for these frequently are not reproduced accurately. However, I disagree (as already stated) with using the RHS charts due to the variability of colour due to environmental control as you pointed out. His example clearly shows the problem. What colour is 30B if you haven=t got a RHS chart? I haven=t, so I have no idea. If it is a red or orange and is recorded as ABurnt Orange@ or ABrick Red@ or AMandarin Red@ (all standardised colours) then I have a much better idea and if I have a cheap standardised colour chart I can look them up.

Finally the Lily borer. I had always assumed that the caterpillar which often decimates my crinums and my clivias (if it could get to them) was the same as your Lily borer. According to our Australian book, AWhat Garden Pest or Disease is That@, it is listed as the lily caterpillar and it is about 50mm long at maturity and is black and yellow in colour. However, it is called Calogramma picta. About 2 years ago I found what I now believe is your lily borer (Brithys crini pancratii?) Alive and well and doing well in Queensland in the Brisbane area. The very obvious difference between the two was that the South African pest eats out the leaves from the inside (between the upper and lower surface of the leaf) whereas the Australian devours the leaves from the outside. At their most destructive, large size, the Australian caterpillar is too large to fit within the leaves. The female moth lays often more than 100 eggs in a cluster on the under surface of the leaf and in the early stages the small caterpillars are not obvious as they devour the leaves from beneath. When about half grown they spread out and become apparent on the top surface and down into the centre of the plant. As they grow rapidly they can do a lot of damage in a short time. They are much more of a problem in the garden on crinums than on the clivias which I grow in shade houses. The moths do not seem to go into the shade houses much but when they do they can really make a mess of the clivias. Because they are on the outside of the leaves I use a carbaryl dust (for tomatoes) in a puffer pack which is extremely effective. I find it more convenient than spraying as I do not have to make up a spray solution. I can just pick up the puffer, kept in my glasshouse, and treat immediately I find an infestation. The natural food for the Australian pest is the millions of Crinum pedunculatum that line the banks of the rivers of coastal NSW

I hope the South African lily borer doesn=t arrive here also but I suspect it will eventually.

Regards,

Bill Morris.

Thank you for your congratulations on the Yearbook and for pointing out some errors in it and in the last Newsletter. We should all know the difference between a >cultivar= and a >hybrid= by now considering the amount of correspondence there has been about them in previous newsletters. Thank you for pointing out my error with the Kewensis >grex=.

A colour palette such as the one you describe sounds an excellent idea and alternative to the RHS colour chart. We will all be rushing off to copy the relevent page in Exotica. Editor.

..\*..

More comments on velamen

From Connie and James Abel

89 Brampton Road, Lynnwood Manor 0081, Pretoria

jabel@yebo.co.za

29 July 1999

Dear Meg

Congratulations once more on an excellent newsletter in Volume 8 no.2.

To comment on the epiphytic ability of clivia, the velamen covering the roots is presumably an adaptation for such a shallow-rooted plant to make optimum use of water with the extended droughts that we have in South Africa. In *caulescens* this varies from the lithophytic (growing on rocks) habit so well shown at God=s Window to the epiphytic growth high in trees at Woodbush. In both cases there is no soil, but there is substantial detritus from the forest canopy, and the seed was presumably originally deposited there by baboons/monkeys/birds. Seed is not normally stripped out and good sets of mature seed can often be seen.

However, the question is, are they genuine or only casual epiphytes, merely resting on a relatively horizontal flat branch or in a fork, with their roots covered by other plant matter? The *miniata* that we have had growing bare-rooted and suspended on a piece of wood for about five years, and which flowered for the Northern Show last year, has shown no signs of new roots growing along the wood and adhering as do those of newly mounted epiphytic orchids. (This plant is watered weekly in winter, daily for the rest of the year, and gets biweekly foliar feeding). The only clivia that we have seen showing orchid-like root attachment is the *gardenii* mentioned by James Haxton in Volume 8 no.2 page 9 that a number of us saw at Kranskop in 1996.

With regard to germinating seed using damp paper towels; Connie reports that root hairs adhering to the paper come free with soaking in water.

With best wishes,

Connie & James

#### Yellow Belgian Hybrid-type Clivia

From Brenda and Etzel Nuss

PO Box 336, Hilton 3245, KwaZulu/Natal

nuss@futurenet.co.za

6 August 1999

We are new members and until we joined the Clivia Club found it very difficult to obtain any meaningful information on clivias. Having devoured the newsletters of the past few years, I want to thank you for the enormous effort and energy you devote to publishing the Clivia Club Newsletter, so that we can all be better informed.

..\*..

In the newsletter Vol. 6. No 2. July 1997, bottom of page 16, you commented on having seen a yellow clivia with certain characteristics of the Belgian Hybrid. I would like to make contact with the owner of this plant to ascertain if I could purchase seed, pollen or preferably a division of the plant to enlarge my gene pool. If you can put me in touch with the owner I would be extremely grateful.

We intend to attend the clivia show in Pretoria in September, so hopefully we will have the opportunity to meet you. Do you know if there will be any lectures etc. and would it be possible for us to have an agenda, so we can plan our visit?

Thank you for your kind cooperation, and again for a job well done.

Yours faithfully,

Etzel Nuss.

First of all, lets not call this a >hybrid= as it is a strain, clone or cultivar.

I do not want to divulge the name of the person to whom this yellow Belgian Hybrid type clivia belongs as it was taken from the wild and as this is a serious offence, that person could be apprehended. However, there was another very beautiful yellow clivia at last year=s KwaZulu/Natal show which was from Japanese stock, so they don=t all necessarily come from the wild.

Most owners of outstanding clivias are very possessive and will not part with any pollen, seed or offshoots. However, it depends very much on the particular person as some are extremely generous with pollen and seed. One of the best ways of obtaining something special is to offer a swop. Keep your eyes open at shows or visits and approach the person owning good cultivars for pollen or seed when others are not around. You may be rewarded for your efforts.

There are no set lectures or programmes for the shows, but there will be demonstrations on various aspects of clivia culture. There is to be an information table at the Pretoria Show. Ed.

The following article was sent to all South African members of the Clivia Club by the Cape Province Branch. As it has so much merit, and is so pertinent right now, it is also being included in the Newsletter.

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We hope that members will take heed of the suggestions when photographing clivia and hopefully we will have better photographs from South African and overseas members for the next publication of the yearbook. Editor.

#### PHOTOGRAPHING CLIVIA FOR PUBLICATION

With the publication of the 1998 Yearbook and the conference papers it became clear that there was a vast difference in the method and standard of photography of Clivia. Different types of film and equipment are used. Many photos are not suitable for reproduction, to a high standard, even though the technology exists today that can partially correct faults when you publish a picture. The major faults detected are as follows:

Only part of the Clivia in focus

Harsh shadows

Burned out colours at the tip of the inflorescence

Unsuitable backgrounds: Glaring bright light

Clashing colours

Distractions

Incorrect lighting

Colours that are either too tense or light

As we hope to be able to improve on the reproduction for the >99 Yearbook, I am suggesting a standard method for photography, at shows, that should ensure the results are less variable and easier to correct for colour. In addition to this I will list some tips for photography in habitat that should also help to improve the quality of the photographs. I have examined a letter published by James Comstock in the Autumn 1999 Newsletter where he gives his excellent views on photography of Clivia. I have also discussed the subject with Bob Adshade, a commercial photographer of many years standing, and the printers that printed our >98 Yearbook. The contents of this article and the discussions have been formulated into a proposal for photography at shows. Professional photographers know which methods work for them and these guidelines are an attempt to improve published quality. In order to get photographs that can be published accurately with all the information about a plant, some work is required. The expense, time and effort of following the suggested methods below will be well worth the results and form an excellent record of comparison for the future.

#### Photography at Shows:

- 1. There should be a competent photographer, who has all the necessary photographic equipment, appointed to shoot all the winners as well as any interesting and unusual plants. A member of the Show Committee should be appointed to direct the photographer on which plants to shoot.
- 2. Provide a sturdy table where plants can be placed in order to be photographed with a standard background. It should be placed in a corner at an angle so the background will fit behind it. The walls will act as reflectors and increase the light on the subject. The background should be provided by the Show organisers and be in the form of a large cardboard or fabric sheet (1.2m width x 2.5m height minimum). The background colour should be a standard Grey colour

(Pantone 410U). The backdrop should be suspended from above. If you wish to shoot the entire plant and pot, then the backdrop needs to be high enough to cover the table in order to provide a seamless background while not being too close to the subject (20cm from rear of plant). Pendulous Clivia should be photographed from below to show the throat of the inflorescence and the background must be tall enough to cover the upward angle of the camera lens.

- 3. Film used should be Colour Transparency of either 100 or 200 ASA
- 4. All shots must be taken on a tripod
- 5. Preferably use an aperture of F16 or F22 in order to give the maximum depth of field.
- 6. At the side of the picture there should be a grey scale and a colour wedge that will assist the printer to accurately reproduce the colours of the Clivia (available from a printer).
- 7. The colour of the inflorescence must be matched to the RHS Colour Chart and this reference number recorded as well as the date and the name of the owner of the plant, the name of the plant, if any, and the parentage where known. The above details must be recorded carefully on a sequentially numbered list in the same numbered sequence as the colour transparencies. The original photographs from the show along with the detailed list must be sent to the editors of the Yearbook for publication. A selection of what is received will form the basis for the Yearbook.
- 8. The camera must be of good quality and 35mm or larger format.
- 9. The lens must be of good quality and with a focal length of between 50mm and 80mm and should have a macro facility.
- 10. The camera should be focussed on a spot between 21% and 25% into the depth of the plant taken from the closest point of the plant to the camera.
- 11. If using a light meter, take the reading on the grey background or if there is not one, on the inflorescence.
- 12. Artificial light is not colour balanced to daylight and will change the colours of the subject. Electronic flashguns are at approximately the same colour temperature as daylight. The flash must be used with an umbrella as this type of bounced or reflected light gives a softer image.
- 13. When shooting the pendulous varieties care must be taken to ensure that the throat of the florets are adequately light. Upright florets usually require to be photographed from above to show them off to best advantage.
- 14. Each subject should be bracketed so that you shoot three shots of each plant; what the light metre shows, and one stop up or down on either side of it. This gives the printer an option to find the best colour balance.
- 15. Note that a photograph should not include any rosettes or certificates as they only act as a distraction and the wording is seldom legible.

#### Photography in habitat or in the garden:

- 1. Photographing in habitat usually means that you are shooting in shade and you will have to use a tripod with a slow speed in order to have a small aperture for depth of focus. (Shooting in bright sunlight or with parts of the plant in sun and parts in shade will not produce acceptable results.) You will probably have to use extra lighting in order to highlight the inflorescence. This could be in the form of fill in flash.
- 2. If shooting a pot plant, move it from deep shade to light shade.
- 3. Take a portable background with you. The use of grey background will ensure that the subject stands out with no distractions.
- 4. Record the details of the photograph on a numbered list just as you would for a show photograph. Also include the place at which the photograph is taken.
- 5. Shoot each Clivia subject three times at different speeds as described in 14 above.
- 6. Don=t shoot very early in the morning or very late in the afternoon as these are the most difficult times to get accurate colours.

Use a professional Photo Lab for accurate results.

Have fun in experimenting using the above as basic guidelines and if you have any queries, please contact me at Cape Town (021) 797 1512.

Regards,

Claude Felbert.

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Sarel Naudé.

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# AGROW CLIVIA@

**AGrow Clivia@** is due to be available at the end of August 1999. It is written by Graham Duncan who is a bulb specialist employed by the National Botanical Institute at Kirstenbosch National Botanical Gardens. He is responsible for the Kay Bergh Bulb House in the Botanical Society Conservatory and is the curator of all the bulb collections at Kirstenbosch. Graham has been a member of the Clivia Club for many years and has written many books on bulbous plants.

**AGrow Clivia@** is printed in full colour, has 48 pages and about 50 illustrations and is a hands-on practical gardening companion to the cultivation of Clivia. Chapters include History, Hybrids, Propagation, Cultivation and the Care of Clivia.

This book is available from the Botanical Society of South Africa at R39,95 which does not include postage or packaging. This price is set at time of publication and may change without notice.

Grow Clivias is the latest title in the Kirstenbosch Gardening Series. Other publications are

Grow Proteas (authors N Brown, H Jamieson & P Botha)

Grow Agapanthus (author G Duncan)

*Grow Cycads* (authors J Donaldson & J Winter)

Grow Restios (authors N Brown, H Jamieson & P Botha)

Grow South African Plants (compiler Fiona Powrie)

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# ACTIVITIES OF CLIVIA CLUB BRANCHES

#### KwaZulu/Natal Branch

Just a short letter with details of our outing to the home of Alick and Frances McLeman. Due to the early flowering of the *gardenii* we had to bring our meeting forward to 15 May. There were about 23 members and friends who set off eagerly in cool overcast conditions.

The area visited is the Everton Conservancy. It was an easy walk along the river=s edge in a really lovely indigenous woodland valley. There were many different varieties of ferns to be seen - from the smallest fern to the giant tree fern. The call of an eagle could be heard in the forest, but we could not catch sight of it and could therefore not identify the bird. There were numerous robins and thrushes hopping around in the undergrowth.

We walked for about 35 minutes, going steadily along towards the waterfall. We saw a few *gardenii* scattered here and there along the way, but most of the plants were situated in amongst the rocks up into the krantz. There were a large number of plants thickly clumped together, up the banks on either side of the waterfall growing in sandy soil and leaf humus. One large specimen was sighted high up in a tree. Unfortunately most of the plants had finished flowering.

The colour of the blooms, of a small clump found exposed along the bank, were a particularly light shade - possibly due to the fact that these few plants were exposed to some afternoon sun. The colour of the other plants looked similar to *gardenii* found in most other areas in the wild in Natal and there did not appear to be any variation amongst plants.

On returning from the walk we wandered around the immaculately groomed plants in Alick=s greenhouses and than enjoyed a braai and chat around the fire.

Val Thurston.

## Cape Province Branch

The first meeting of the George Clivia Interest Group was held in George on Saturday, 31 July 1999 at the home of Ian and Geraldine Vermaak. Six members of the Cape Province Branch Committee were present (John Winter, Mick Dower, Toy Jennings, Claude Felbert, Gert Wiese and Ian Brown) and constituted a panel for an Q & A discussion. John Winter gave a practical talk on general cultivation which included dividing a clump of *C. caulescens*, potting seedlings and cleaning seed.

The meeting was well attended B there were 39 persons present, some having travelled as far afield as Port Elizabeth. 12 new members signed up. Each member, new and old, was given a yellow seedling.

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Three flowering-size yellows were raffled. There were also seedlings that could be bought. So almost everyone left with a clivia tucked under their arms!

A magnificent tea was provided by Geraldine that augmented the warm friendly atmosphere. People present were afforded the opportunity of looking through lan=s impressive Clivia shade house and Geraldine=s equally impressive Orchid house.

It was indeed a happy Saturday morning. R720,00 was collected from the sale of raffle tickets and commission on plants. This money will be earmarked for the needs of this enthusiastic group.

And next B the Cape Province Branch committee plan a visit to Port Elizabeth in October with plenty of enthusiasm from Annetjie Smith who will be co-ordinating the meeting (Tel. 041 306215).

## **Cape Auction Action**

To coincide with the National AGM and the Cape Show, the Cape Province Branch will be holding an auction of interesting Clivia plants made available by members, on Saturday 18<sup>th</sup> September at 15h00. The venue will be Kirstenbosch and we invite all members who will be in Cape Town to submit plants for auction, as well as to attend the event.

Last year Jim Holmes held a successful auction where 30 Clivia plants were sold. The average price obtained was R377 and the highest price was for a Japanese Dahruma, which fetched R640. This year we hope to have  $\forall$  40 plants, 34 of which will be by registration prior to the event. At least 6 places will be reserved for any plants that win awards on the show, if the owners wish to sell.

In order to arrange for your plants to go on auction they should be excellent examples of their type and preferably be in flower. Plants not in flower should be of one of the pendulous variety that does not flower in September, or should have >special characteristics= e.g. variegated foliage or broad leaf. The plants are sold according to the description provided by the seller and therefore the auction committee and the Cape Province Branch of the Clivia Club cannot be held responsible for the accuracy of the descriptions.

People who wish to sell on auction, must register the fact that they have a plant or plants that they want to place on the auction. This must be done by the 9<sup>th</sup> of September. The number of plants and a brief description must be given. The seller will then be notified by the 12<sup>th</sup> September whether they have a provisional place on the auction. By the 17<sup>th</sup> at noon the plant or plants must be with the auction committee at the show hall at Kirstenbosch, along with a completed form giving details about the plant. At least 6 places will be reserved for people wishing to auction plants that are on the show and have won awards. A final vetting will be done before the plants are accepted. Once accepted the plants will be held at the auction venue. Forms to be filled in will be available at the venue and will require the name and address of the owner and a description of the plant and its breeding, where known. Plants sold will carry a commission of 15%, which will go to the organizing club. This sum is paid by the seller and is deducted at the time they receive the money for their plants.

Requests for registration must reach the writer preferably by fax at (021) 7627979 before 18h00 on the 9<sup>th</sup> September. Queries can be answered by phoning me at (021) 7971512. Acknowledgment will be given by the 12<sup>th</sup> September as long as a Fax or telephone number is supplied.

Anyone may register to bid for a R10 fee and will be issued with a catalogue and a numbered paddle to be displayed so that the auctioneer may identify the bidder. All sales must be settled immediately after the

auction by cash or bank guaranteed cheque. If any of the award-winning plants on show are auctioned, they may not, under any circumstances, be removed before Tuesday the 21<sup>st</sup> September at 17h00. Transport of purchased plants to the buyers home must be arranged by the buyer and is at their own risk.

The success of any undertaking such as this is dependent on the participation of the members both as sellers and as buyers. I hope that we will receive your enthusiastic support in both areas.

Claude Felbert

If this newsletter does not reach members before 9 September, please contact Claude Felbert as soon as you get it if you wish to register for the auction. Editor.

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# Northern Branch

We have rather little news except that arranging the show has taken up most up of time since our last meeting held on 24 July at the National Herbarium of the National Botanical Gardens. Our advertising campaign (run by James and Connie Abel) in local newspaper is certainly paying dividends. I am sure we set yet another attendance record at the meeting with over 120 people present. We will definitely have to find a new venue for meetings.

Our guest speaker at the meeting was Mr John Druez who introduced Greenfingers organic liquid fertilizer to members at the meeting. Further information about the product is available on request from Sarel Naude, Tel (012) 661 5491.

Our branch took the responsibility to advertise the Shows on a national level. Thanks a lot to Chris and Wimpie for their efforts in this regard. I am sure their efforts will be reflected in an dramatic increase in the numbers of the public attending the three shows.

On Saturday 28 August about 30 members of the Clivia Club and their families met at AThe Farm@, Miriam Meltzer=s home near Brits for a braai. Not all the clivia were in flower, but those that were made a spectacular display. It was a lovely day and a good time was had by all.

## 18 September 1999 Garden Visit - James & Connie Abel

The garden visit will start at 11h00 at the home of James & Connie Abel, 89 Brampton Road, Lynnwood Manor, Pretoria. The garden visit will also include a Abring and braai@. Please bring your own blanket and or chairs, food, drinks and a few pieces of charcoal and come a enjoy the afternoon with the Clivia friends.

## End of year function

Our end of the year function will take place on Saturday 13 November. It will be in the form of a social get together with a short meeting during which we will report back on the show results, and the AGM that will probably be held in January 2000. We will forward more detailed information to our members after the show.

Sarel Naude.

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## INVITATION TO MAKGALAMEETSE

Margot McNeil has very kindly offered to host members of the Clivia Club at her beautiful garden in the Makgalameetse Nature Reserve. It is situated in a kloof of the Drakensberg mountains about 50 km south of Tzaneen. Clivias grow in profusion amongst other indigenous flora under a canopy of deciduous trees. There are many miniata cultivars and a few hybrids to be seen in a beautiful natural setting. The diversity of the plants makes it interesting and names have been given to identify the various cultivars. If you haven=t been there before, this visit is a must!

Anyone wishing to see the garden must make prior arrangements. Groups of up to 20 can be accommodated and there will be plants for sale. You can contact Margot by telephone at:

(015) 383 2016 or in the mountains at 0152302 and ask for 1541 or cellphone 082 806 5967.

Meg Hart.

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# MEMBERSHIP DETAILS

# New members as at 21 August 1999

# Australia

Mr David Bearlin, 32 McComas Grove, Burwood, V 3125 (Victoria)

Mr Roger Harrison, No. 1 Lakeview Gardens, Edgewater, WA 6027 (Western Australia)

W & J Kohler-Bond, Lot 9 Badja Place Congo, NSW 2537 (New South Wales)

Mr John Lawrence, Little Lynwood, Rous Road, Alstonville, NSW 2477 (New South Wales)

Mrs Jackie Spencer, 89 Graham Road, Viewbank, V 3084 (Victoria)

Mrs Margaret Taras, 25 Vermont Street, Glen Waverley, V 3150 (Victoria)

## Denmark

Stouby Tropeplanter v/ Harald Larsen, Fakkegravvej 17, DK-7140 Stouby

## New Zealand

Christine Hawthorn, R-D-3, Kerikeri Road, Kerikeri

## RSA

Christine & Theuns Benadé, Posbus 1384, Honeydew 2040 (Roodepoort, Gauteng)

Danie Bester, Posbus 485, Oudtshoorn 6620 (Western Cape)

Mark & Ina Bradshaw, 1231 Walter Avenue, Waverley 0186 (Pretoria, Gauteng)

Frank Chambers, 28 Parakiet Street, Genevafontein, George 6529

Mr Manu Chana, 256 Himalaya Street, Laudium 0037 (Pretoria, Gauteng)

Ian & Priscilla Clark, 'La Petite', Old Kendal Road, Constantia 7800 (Western Cape)

Piet & Joey Colyn, Posbus 17463, Pretoria Noord 0116 (Pretoria, Gauteng) Eddie & Zelda de Bruyn, Posbus 30554, Wonderboompoort 0033 (Pretoria, Gauteng) Bill & Jean de Swardt, PO Box 650022, Benmore 2010 (Sandton, Gauteng) Hannili & Johan Dreyer, Waterweg 207, Walmer 6070 (Port Elizabeth, Eastern Cape) Marlene & Stan Elms, PO Box 213, Fontainebleau 2032 (Randburg, Gauteng) Linda Engelmohr, 19de Laan 2, Mosselbaai 6500 (Western Cape) Susan Erwee, PO Box 1480, Knysna 6570 (Western Cape) Charmaine Fiorotto, 7 Tyson Road, Parkview 2193 (Johannesburg Gauteng) Glenda Fouché, 20 Tiverton Road, Plumstead 7800 (Western Cape) Coen Fraenkel, Posbus 1673, Kimberley 8300 (Northwest Province) Jansje & Robert Gagel, 40 Main Road, Farrarmere 1501 (Benoni, Gauteng) Sunelle Geyer, De Lecosta D9, Steenloperstraat 62, Monumentpark Uitbr. 0181 (Gauteng) Christopher & Louisa Goble, PO Box 64, Maidstone 4380 (KwaZulu/Natal) Myrlene Gorman, 23 Arbour Road, George 6529 (Western Province) Beth Hackland, 61 !6th Street, Parkhurst 2193 (Johannesburg, Gouteng) Withold Jarmolowicz, PO Box 109, Rondebosch 7700, (Cape Town, Western Cape) Chris & Maggie Kasselman, Posbus 15400, Lynnwood East 0039 (Pretoria, Gauteng) Karen Kieviet, Posbus 13013, Stellenbosch 7600 (Western Cape) James Knipe, 6 Windsor Court, Edgemead 7441 (Western Cape) Hennie Koch, PO Box 1471, George 6530 (Western Cape) Anne Kuhl, 10 Hillwood Road, Heatherlands, George 6529 (Western Cape) Brook Leiper, 26 Frances Street, Grahamstown 6140 (Eastern Cape) Alta Marx, Teresalaan 385, Murrayfield X1 0184 (Pretoria, Gauteng) Leon Moser, PO Box 4468, George East 6539 (Western Province) Miriam Müller, Posbus 190, Jeffreysbaai 6330 (Eastern Cape) Perry Notley, Deonstraat 43, Rowallanpark, Port Elizabeth 6025 (Eastern Cape) Johan Olivier, Posbus 1155, George 6530 (Western Province)

Riki & Carl Opperman, Posbus 171, Mooreesburg 7310 (Western Cape) Ren Pautz, PO Box 209, Knysna 6570 (Western Cape) Michael Phillip, 18 Maclear Crescent, Edgemead 7441 (Western Cape) Greg & Allison Pilling, PO Box 1003, Morningside 2057 (Sandton, Gauteng) Arie & Frouk Pilon, Posbus 611, Welkom 9460 (Vrystaat) Jimmy Rogers, PO Box 441, Phalaborwa 1390 (Northern Province) Herman & Christine Scheepers, Fouriesingel 27, Kiblerpark 2091 (Gauteng) Jenny Stevens, 8 Waterloo Road, Wynberg 7800 (Cape Town, Western Cape) Boelie Stevn, Thatchers Fields 280, Lynnwood 0081 (Pretoria, Gauteng) Hanna Steynberg, Posbus 5825, Pretoria 0001 (Gauteng) Rudi Syfret, 12 Balfour Avenue, Claremont 7700 (Cape Town, Western Province) Caryl & Neil Sykes, PO Box 206, Gillitts 3603 (KwaZulu/Natal) Marietjie Tom, Posbus 1420, Witrivier 1240 (Mpumalanga) Jolanda & Koos van Nieuwenhuizen, Alcadeweg 41, Lynnwood Glen 0081 (Pretoria, Gauteng) Willie van Rensburg, Deonstraat 43, Rowallanpark, Port Elizabeth 6025 (Eastern Cape) Tokkie & Willem van Rooyen, Posbus 767, Carolina 1185 (Mpumalanga) Nic & Hannetjie van Tonder, 174 4de Laan, Salvokop 0002 (Pretoria, Gauteng) Gerrit van Wyk, Cedarbergweg 19, Durbanville Heuwels 7550, (Tygerberg, Western Cape) Paul & Annamarie van Wyk, Stasiestraat 658, Pretoria Noord 0182 (Pretoria, Gauteng) Frans & Tillie van Zyl, Posbus 25026, Monument Park 0105 (Pretoria, Gauteng) Elsabé & Johan Viljoen, Lysstraat 163A, Rietondale 0084 (Pretoria, Gauteng) Willie & Henriette Wesselman, Posbus 59609, Karenpark 0118 (Pretoria, Gauteng) **United States of America** 

Glen Stokes, 521 East Main Street, New Iberia, LA 70560 (Louisiana)

#### Zimbabwe

Mr & Mrs GW Harris, Gorve-Donra Nurseries, 15 Millbrook Avenue, PO Greendale, Harare

#### Address changes as at 21 August 1999

# Australia

Dr Ding G He, 16 Fairweather Street, Kenmore, Q 4069 (Queensland)

## RSA

Brian & Jill Bell, Box 13678, Northmead 1511 (Gauteng)

Neethling Du Toit, Posbus 3922, Nelspruit 1200 (Mpumalanga)

Louis & Teresa Wolfaardt, Posbus 1928, Brooklyn Square 0075 (Pretoria, Gauteng)

# New e-mail addresses as at 21 August 1999

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			.*	
	Pretoria Ga Pretoria Ga P Elizabeth Jht oble Ma Jht Sandton Pre	Jhb oble Maidstone Jhb Sandton Gauter	Pretoria Gauteng jabel@ Pretoria Gauteng daisey( P Elizabeth E Cape johanda Jhb Gauten oble Maidstone KZNata Jhb Gauten Sandton Gauteng Pretoria Gauteng viljoeg(	Pretoria Gauteng jabel@yebo.co   Pretoria Gauteng daisey@mweb   P Elizabeth E Cape johand@inteko   Jhb Gauteng   Jhb Gauteng   oble Maidstone   Jhb Gauteng   Jhb Gauteng   Sandton Gauteng   Pretoria Gauteng gregp@   Pretoria Gauteng boelie.a   Pretoria Gauteng viljoeg@alpha.a   New Iberia Louisiana

# FOR SALE

From the Clivia Club:

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.

**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.

**ATHE CLIVIA@** by VA Thurston. R100,00 a copy. Cost of book **plus registered postage**: South Africa - R110,00 (signature on delivery); UK - ,20.00; USA - \$30.00; Australia - \$50.00. Payment: **cash** with order by **registered post**; overseas orders - preferred payment in **cash** in **US dollars**. Allow ∀ 3 weeks for printing and delivery. **NB. New address:** Mrs V A Thurston, PO Box 3181, Westbrook 4400, South Africa. **NB. New phone no.** (032) 943 1316 after 4pm.

*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.

*Clivia miniata* F<sub>1</sub> (yellow x orange), Apinks@ and pastels, flowering size @ R12 plus postage and packing. *Clivia miniata* yellows, flowering size @ R150 plus p&p. Order <u>now</u> for this year=s flowering season. Dries Bester, Box 75, Levubu 0929. Telephone/Fax (015) 583 0299.

*Clivia miniata* - cream, yellow, apricot, orange pink, red and pastels - flowering August/September. Contact Bing Wiese, Pretoria (012) 46 6382 to view.

..\*..

## **BEGINNER=S LUCK**

The seedpods of the clivia in the Glasshouse at The National Botanical Gardens at Kirstenbosch are absolutely huge and full of seeds. I asked John Winter how he achieved such successful pollination. You can also refer to Roger Harrison=s >Seed production improvements= in the Clivia Club Newsletter: Volume 3, Number 3, March 1994.

Factors which influence the success of pollination are firstly whether you pollinate at the right time. The stigma must be receptive to the pollen. If you pollinate too early you won=t have success. Usually the tip of the stigma splits indicating that it is receptive. Secondly, your pollen must be viable. It is always preferable to use fresh pollen.

To produce good seed I have found that if certain clones are used as the parents a good crop of seed is produced, while other parents do not produce a decent crop. A good example of this is the Kirstenbosch Yellow. It doesn=t produce good crops of seed. I think that genetics plays an important role in producing vigour. So the clivia used to pollinate the plant you saw during the conference has vigour and probably so does the mother plant.

John Winter.

..\*..

#### ON THE COMPOST HEAP

If you are a wife whose husband has retired and is driving you crazy I suggest that you take out a subscription for him for the Clivia Club! It will keep him busy for years and will keep him out of your hair and will prevent him from interfering in your kitchen. You may even be lucky enough to have him go off for a few days to one of the shows or on a Clivia Club tour!

I really suggest that you all visit some of the shows and open Clivia gardens this year. Each year more beautiful cultivars are being bred and exhibited. The 1994 Yoshikazu Nakamura seeds are also beginning to flower and you may be able to see some of his spectacular cultivars and hybrids.

Lily Borer (Brithys crini pancratii).

. \*



# Clivia Club

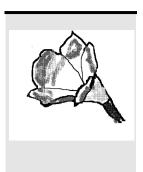
# PO Box 74868 Lynnwood Ridge 0040 South Africa

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# Volume 8 Number Four Summer 1999

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*	

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

..\*..

## EDITORIAL

September 1999 saw Clivia in all their glory, especially at the shows organised by the three Club Branches. The Annual General Meeting was held for the first time at the Cape and the outgoing Chairman=s and Treasurer=s reports are given. A new Central Committee was elected which is representative of all the Branches. It consists of a few members of whom some have considerable botanical knowledge and they are supported by others who have been successful in various branches of business. We hope that they work well together and continue to inspire the Clivia Club and its members.

In this Newsletter the Abels have provided an easy key to the identification of the various species and Bill Morris defends his stance on definitions and nomenclature. Some of the correspondence is of a more frivolous nature - there are contributions on colour from Nick Primich and Dries Bester and Gert Wiese discusses a visit from an interested party at his home in Durbanville. On a more serious note are problems with delivery of seed from overseas as experienced by the Abels.

Two Clivia catalogues from China have stirred the interests of clivia growers and both have excellent photographs. We only wish we could read Chinese. However, Harold Koopowitz has kindly sent a translation of one and extracts of the text will be reproduced in this and subsequent newsletters to enlighten you about Chinese clivia growing. These versions have not been edited.

The Clivia Club shows last year were well advertised nationally and were attended by literally thousands of people which also proves the increasing popularity and interest in Clivia. Wimpy van Rooy was responsible for organizing the advertising campaign using all facets of the media. Notices of the shows were placed in newspapers, popular magazines and gardening journals, and distributed on flyers. Many Clivia Club members gave radio talks and spoke at Garden Clubs. The Shows were bigger and better than before with some really excellent specimens exhibited. Pastels, other shades and cultivars were more evident. Sellers also had field days and the ever popular yellows were much in demand but the price of ordinary yellow clivias has dropped somewhat as there are now so many more available on the market.

A few of us had the pleasure of meeting one of our overseas members, Cynthia Marriot and her husband Dennis. They live near Croyden, Surrey, in the south of England and Cynthia is a very keen gardener. Dennis had won a trip to come out and watch the first South Africa versus England cricket test at the Wanderers in Johannesburg. He himself was a county cricketer and a first class player of note. The English side failed in the first test but the Marriots= spare time was spent visiting some Clivia Club members in Gauteng where the they enjoyed meeting Clivia growers and seeing Clivias growing in their natural state.

With so many enthusiastic growers we can look forward to many more exciting colours, shapes and sizes in the future. Most Clivia enthusiasts appear to have something special in their private collections - an exceptionally large flower, a multi-petal, a deeper yellow, a special broadleaf or an interesting variegated plant. We all hope that our seedlings will produce something really special some day! With the growth in membership more and different members are being included in all facets of involvement with the Club=s Branches. This all helps to generate further interest and discussion. May the Club continue to be a source of inspiration and information in the next Millennium and may the genus Clivia really be put on the map, not only in South Africa

but worldwide.

Meg Hart.

..\*..

## CLIVIA CLUB AGM 17 SEPTEMBER 1998

#### Chairman=s Report

The Clivia Club has once more experienced a tremendous growth in membership. This is a good indication of the success of the Club and of the popularity of this beautiful plant, the Clivia.

From a small beginning in 1992, membership of the Club grew to 210 in July 1995. The latest newsletter has been sent to 608 members in 11 countries.

Before the 1999 Branch shows, Kwa Zulu/Natal had 62 members, the Cape had 210 members and Gauteng had 261 members. I am informed that Kwa Zulu/Natal enrolled a further 10 members during their recent show and that Gauteng enrolled a further 107 members with membership applications still coming in. The same tendency can be expected during the Cape show. Our membership now seems to be exploding. Our show venues are becoming too small. This is very good news for all of us who love Clivias.

A matter of concern is the fact that we are not retaining all the members. Our database includes 1002 members whereas only 608 have renewed membership. Some members have passed away, but many simply do not renew their membership.

I am confident that our Branch Committees will be addressing this problem and that members who do not renew membership will be followed up by Branches. As far as overseas members dropping out, problems (if any) will have to be identified and solutions will have to be sought.

The year since the last AGM also kicked off with a very successful Second International Clivia Conference held at Kirstenbosch and hosted by the Cape Branch. This conference must be regarded as the highlight of the past year. The Cape Branch is to be commended for such a splendid Conference in a beautiful setting such as Kirstenbosch National Botanical Gardens.

During the year we also saw the publication of the Clivia Yearbook that was organised by the Cape Branch. This publication was a tremendous improvement to the previous Clivia Review. John Winter, Mick Dower, Claude Felbert and the committee are to be congratulated on the success of this Yearbook. We look forward with excitement and anticipation to future publications.

The Newsletters have once more been an inspiration and source of information to all members. I wish to thank our Editor, Meg Hart, for all the hours and devotion she has put into the Newsletter. My thanks too to Adri Haxton and Koos Geldenhuys for the distribution thereof.

I must also thank our members who so faithfully contribute to the articles, and here I wish to single out Bill Morris of Australia, Wessel Lötter and Nick Primich. Thanks to you and all the others for making our reading so very interesting and informative.

Members of the Cape Branch have mentioned that the quality of the Newsletter should be improved and we look forward to what will be done in this regard.

In his annual report at the last AGM, James Abel, the out-going chairman, pointed to the inadequacy of the existing Aconstitution@ and stated the following: AThe election of office bearers for 1998/9 will be the last under the current constitution@. This unfortunately has not materialised. The election of office bearers for 1999/2000 will still be done in terms of the old inadequate constitution since the new constitution is not yet in place. This will be one of the main task for the new Committee and I sincerely hope that before the AGM in 2000, we will have a new constitution in place. This constitution should be a

constitution for a world wide Clivia Club and not a Branch-type of constitution. The Branches will then draft or amend their constitutions to be in line with the main constitution.

The Sub-Committee appointed by the previous Central Committee has prepared a draft constitution and this has been handed over to the three Branches for further consideration.

A further challenge to the new Committee will be matters pertaining to the judging of Clivia at shows and the training and accreditation of judges. At the recent Gauteng show the judges realised once more that much work still has to be put into the different classes provided for at shows. The pastels for example need to be divided into different classes. Classes also need to be created for the Aspiders@ as compared to those with full florets. I have urged that this should be the task of the judges and that a judges committee should be formed to advise on matters of training and accreditation of new judges, as well as the classification and standards applicable to Clivias at shows.

As already informed, I will not be available for re-election. Elda de Witt, Adri Haxton and Koos Geldenhuys have also not made themselves available for re-election. I sincerely trust that the new committee to be elected will be an independent committee that will not hold office in both the Branch Committee and the Central Committee as was the case in the past. This will be the only way in which a Central Committee will serve the interests of Branches/Members in an objective and independent manner without favouring a specific Branch or group.

I wish to express my sincerest thanks to the members of the outgoing Committee for all their hard work and devotion during my term of office. We are all indebted to their contributions in making a success of the Club.

I wish the new committee to be elected everything of the best and look forward to their term of office.

In closing I also want to wish the Cape Branch much success with their show as well as with the auction to be held. We look forward to a wonderful show.

Thank you all for attending the AGM. May it be a beautiful Clivia year for all of you and all our other members who could not attend this AGM.

TINO FERERO

17 September 1999

..\*..

#### Treasurer=s Report

Unfortunately due to work pressure I can not attend the AGM but Tino Ferero has agreed to present my report and the audited statements for the 1998 financial year.

As was predicted (and this is why the membership fees were raised to R60,00 as from 1 January 1999) the Club made a loss of almost R6 000,00 for 1998. This is a bit higher than was anticipated but it was brought about by the breaking of Elda de Witt=s photocopier, that we were obliged to repair at a cost of R. 500,00.

To clarify some figures on the financial statements I would like to comment as follows:

# Income:

The drop in income under the heading plant seed sales is due to the fact that fewer seeds were sold during the financial year.

# **Expenditure:**

# Depreciation

Depreciation is calculated as per note 2 on page 5 of the financial statements on the Club=s assets which consists of the following:

1 X FUJITEC P166 computer (purchased 1.3.1997 for R6 999,00)

1 X BROTHER WL-660 printer (purchased 20.6.1996 for R3 050,00)

1 X SAMSUNG SF 2800 fax/telephone answering machine (purchased 14.9.1996 for R. 550,00)

# Donations

Included is the donation to Craig Honiball who is doing his Masters at the University of Pretoria on the manipulation of the flowering of the Clivia.

# Entertainment

Eats and drinks supplied at meetings and special meetings of the committee.

# Newsletter

This represents the cost of the Newsletter including postage.

# Plant/seed

This amount represents the portion of the proceeds from the sale of Nakamura=s seed paid to Mrs Dobson.

# Postage

Postage paid on general correspondence i.e. other than on mailing of the newsletter.

# Show expenditure

This represents the amount paid to the Cape Branch as assistance for hosting the international conference.

# Stationery

Main expenditure items were:

Repair to photocopier that is used extensively for Club purposes (R. 500)

Toner for photocopier and printers (R1220)

Copies of past issues of the newsletter (R4 200)

Envelopes (R1 500)

Sundries (photostats, stickers, staples, file dividers, fax rolls, batteries etc.)

# Telephone/fax

Payment of the Club=s telephone, fax account.

Should there be further queries in regard to the statements these will gladly be answered in writing.

It has long been planned to upgrade the Club=s newsletter. However, at the present membership fee of R60,00 this will not be possible. Serious consideration should be granted to obtaining a sponsor/s or to sell advertising space in order to keep membership fees down.

Furthermore it can also be argued that the membership fee of R60,00 is very low, considering that one gets 4 newsletters and a Yearbook of the quality we have just seen from the Cape Branch.

I have always maintained that the membership fees should cover all administrative and newsletter expenditure, (unless of course the newsletter is sponsored) and income from other sources such as seed sales must be regarded as a bonus and not be relied upon. The trend lately is in any case that the branches should sell seed and not the Central body.

I wish to thank the Club for entrusting me with the finances during the past 52 years. I will not be available for reelection and would like to wish the new committee everything of the best for the future as I reckon we are on the brink of a huge explosion in CLIVIA interest with more and better flowers popping up at every show.

I THANK YOU.

#### **KOOS GELDENHUYS**

The audited financial statements for the year ending 31 December 1998 are enclosed.

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#### Abbreviated Minutes of the AGM

For the first time the AGM was not held in Pretoria but at Kirstenbosch on Friday 17 September 1999 and was attended by 38 members. The new constitution had not been finalised so it was conducted under the original constitution.

The minutes of the previous AGM were read and adopted. The Financial Report dated 31 December 1998 (which showed a deficit of income over expenditure of R5847 for the year); the Treasurer=s Report on financial matters and the Chairman=s report were read.

The following members were proposed and elected unanimously to the Central Committee: John Winter (Chairman), Ian Brown (Treasurer), Sean Chubb, Brian Tarr, Chris Vlok, Sarel Naudé, and Meg Hart (Newspaper Editor).

The meeting was handed over to the new Chairman who proposed a vote of thanks to Tino Ferero for his contribution during his term of office during which time the membership had grown substantially.

Concern for the conservation of Clivia was expressed by Sean Chubb who said that Clivia were being decimated in their natural habitat. Mick Dower suggested that Nature conservation be involved in a project to make Clivia available at low prices where they are sold for medicinal purposes (muthi). Gert Wiese wanted clarity on permits for Clivia.

..\*..

#### FROM THE CENTRAL COMMITTEE

#### Chairman

Although the committee members are situated far apart in three provinces, the entire committee is connected to the e-mail and are therefore able to keep in touch with each other speedily and efficiently.

The constitution is on the brink of being finalised and should be available to interested members soon.

Although the Chairmanship of the Club is now in the Cape, the postal address remains unchanged. A post box will be available in the Cape sometime in the future.

The Cape branch is in the process of compiling the Clivia 1999 Yearbook.

John Winter.

--0--

# Treasurer

Koos Geldenhuys has handed over the financial matters of the club and these are now centralised in the Cape. The seed bank has been terminated and deposits refunded to the members who participated in the scheme.

lan Brown.

--0--

## Membership Administrator

We hit the 900 barrier for paid up members for 1999. To all those new members joining the club during the past year we want to welcome you and promise our continued support. The new membership lists are no longer part of the Newsletter but are given as a separate enclosure.

The various branches will be responsible for collecting the 2000 membership fees. A levy of R80,00 is paid by the branch for each member to the Central Committee. At present each branch has a different subscription rate depending on how much that particular branch subsidises its members. It is hoped that subscriptions paid by members will be unified in the future.

Sarel Naudé.

--0--

#### Editor

This Clivia Club Newsletter has had a problematical gestation period and a long and difficult delivery fraught by many complications - printer problems, viruses, hard drive hitches and retirement inertia. The Apgar rating was a bit low in 1999 but improved once we reached the Millennium and I hope it is now a healthy informative edition.

Thank you to all those who have sent in contributions to the newsletter. If your letter or article has not appeared in this issue it is because space does not allow it.

..\*..

Meg Hart.

#### CORRESPONDENCE

## Thumbnail key for distinguishing the four Clivia species

From James and Connie Abel

89 Brampton Rd, Lynnwood Manor, Pretoria 0081

e-mail jabel@yebo.co.za

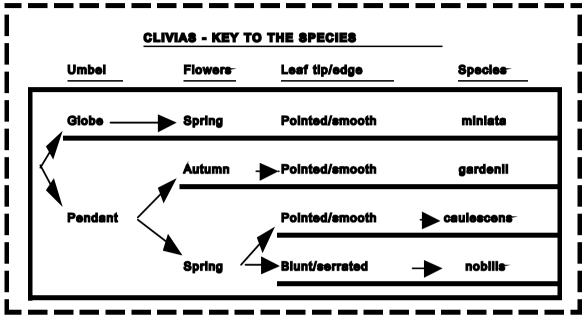
Dear Meg

26 September 1999

At the Northern Show we had good specimens of the species on exhibition, and were surprised and pleased at the interest in them that was shown by the public. The lack of knowledge is exemplified by two recent articles in popular gardening journals, the first stating that clivia were found from the E. Cape to

Mpumalanga (what, no *caulescens* from Marieps to Levubu?!) and the second that "The clivia with the umbel of drooping flowers is *Clivia nobilis*" (score 33%!).

The interest has led us to draw up a thumbnail key, based on that which we first published in newsletter Vol 3. No 1 of Jan 1994, which may be of interest to other members.



Regards, Connie and James

Members who have not seen this key before should find it especially useful in distinguishing between the various pendant species. Editor.

..\*..

## Final discussion on definitions and nomenclature

From Bill Morris

PO Box 17, Medowie, NSW 2318, Australia

10 October 1999

Dear Meg,

I am writing to answer some of Nick Primich=s remarks in the Spring 1999 Newsletter. The most disturbing remark is his claim that my subdivision of yellow clivias into two groups on the basis of their breeding behaviour contains Amythical and non existent plants@. Presumably this means that I made them up.

None are Amythical or non existent@. Both the names and the plants exist. As I explained in the original article it appears that some of the names may be synonymous and very few have been validly published but this doesn=t mean they don=t exist.

As I don=t live in South Africa I can do little myself to rectify this situation. It is up to South African growers to do that. All of the names used were either obtained from breeding results of other people using the names in my article, generally South African correspondents of mine, or results I have obtained and

observed myself from seeds sent to me under these various names by others. I wrote the article because such an article was asked for in the Newsletter and it seemed no one else was willing to stick their neck out.

Also in my conclusion I asked for any additions, details of synonyms, and any corrections (results which support or disagree with the scheme suggested). It is interesting that Nick did none of these things and only suggested that I had invented names.

Regarding definition of terms, I found Nick=s examples amusing. His first two are similar and suggest the words Abreed, race, stock or line of descent@ as being roughly equivalent to a Astrain@. This is correct in general usage but this is not a definition. The third example is a definition and is obviously written in ABotanese or Biologian@, as it uses none of the words quoted in his first two examples. All three are good examples of the confusion and non agreement that exists when you use dictionaries.

With regard to >Natal Yellow=. There is a definite problem with using different cultivar names for plants which look identical to most people. Wessel Lötter showed that there were two different plants in cultivation under the one validly published name. He noted there were a few very minor (to the eye) differences between them but that they were different genetically. There doesn=t seem to be much point in giving the second one a separate name as they will always be confused by growers and I would suggest that in most cases the two names will end up wrongly applied. Although there is no legal standing for it I think >Natal Yellow A= and >B= is a good compromise. The other, applying two names, just seems a waste of time.

Regards,

Bill Morris.

This topic has been thoroughly examined by several contributers from a number of different perspectives. In the absence of any new insights the editor wishes to suggest this subject should now be closed. Editor.

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# Colour as I see it

From Nick Primich

PO Box 6240, Westgate 1734

3 November 1999

Colour is not so incapable of being measured. In fact, some of the finest and most accurate measurements can be applied to it. We take a rather cavalier approach to colour, and very few of us are practised at describing colours. Yet, if you took your car to the panel-beater, and he returned it to you with a paler or deeper shade of paint over the repair you would be very unhappy. In my youth I worked week-ends in a friend's motor shop to make extra cash. One of my jobs was to match colours for the spray-painters. At first this seems impossible, but later it becomes more simple as one learns, especially as wet paint has a different tone to dry paint.

My mother was a music teacher, and steadfastly refused to teach me as I was tone deaf. Yet I was keen on music, and when I went to work I bought a cheap violin, and found a kind old man who taught me to play it. He often went without his payment, but he wanted to teach me, for as he said, I wanted to learn. No, I did not become a Paganini, but I did get a firmer grasp of the musical scales, and if not perfect pitch I could at least tell if the notes were going up or down. Thus it is with most things. Practice makes perfect? Well seldom, but it certainly makes one better. Anyhow, I certainly gained a deeper appreciation of music, and a far greater enjoyment from this learning process. The hours of practising scales can teach even the dumbest, or should I say the most tone-deaf of us, some direction.

When you look at colours you can also practice. I don't suppose everyone will rush out and buy an RHS colour chart, but any serious student of Clivia should have one. If you can't afford one, collect a few paint colour charts and practice with them. Do not only use them on clivia, but on any other flower in the garden, or match the paint on your wall. Before you compare the colours try to guess the colour. At first you will be miles out, but after a few months of practising, you will become far more precise.

We start with the primary colours, red, yellow and blue. Some people will tell you that we can make all the other colours from these three. We can if we can get hold of a little black to "grey" certain shades, and "white" to lighten others. The printers have a system called the "Munsell colour system". Here colour is given three attributes, (1) HUE; red, orange, pink etc. (2) Value; the lightness or darkness of a colour. (3) CHROMA; strength or saturation of a colour. With this system colours can be rapidly classified with hand-held photometers.

When I first started with Clivia I also believed that there were only pale yellows. After all, cream is a pale shade of yellow. But then you get deep and pale creams too. Deep chrome yellow has a fair amount of red in it and some people will call it orange. Why not stick to the RHS chart? We are going to need it when we want to register our plants when the registration committee gets into gear. I have not seen the Exotica colour chart, thus I have no opinion of it, but if it eliminates many of the RHS shades and only gives a few colours, it will be of no use.

Perhaps our young Pretoria computer buffs could look into emulating a chart similar to the RHS one, but at a lower cost. The cost of computer printing has dropped remarkably in these past few years!

If one is insensitive to colour, one should busy oneself elsewhere, and leave colour to those who appreciate it and are capable of working with it. I do not believe men, *per se*, are insensitive to colour. How does one come to that conclusion? Many men are engaged in colour sensitive industries and doing very well there too. Certainly men have the short Y chromosome which is said to give some eight per cent of men colour problems, but the other ninety two percent seem to get along well enough. The yellow of yellow clivias is not just a straight colour either. As the yellow is held in chromoplasts distributed throughout the mesophyll of the petal, it is paler in thin parts and deeper in thick parts. This happens to the yellow in the orange clivias too, but is much easier to see in the plain yellows.

Furthermore, the yellow colours fade to white as the plant ages, whilst the red becomes darker. Thus a flower goes through a range of colours during its short life. I'm afraid there is no easy road. If you want to realise the colour values you will just have to learn to work with them, and if you are too lazy (usually put as "too busy") to do this, then you must forego one of the finer pleasures of your plant.

Now yellow and red (orange), are not the only colours we have to deal with these days. There is white, which is appearing in increasing quantities in the centres of many plants, and green which in *miniatas* tends to be found in the median line of the petal. I have seen a few centres with beige or light brown in them. Pink needs to be on a flower with little or no yellow, as the yellow turns the pink to peach or orange. So I say "Strength to the colours! May they proliferate!"

N. Primich.

Is there any concrete evidence that men are poor at colour identification? I fully endorse Nick=s idea that the >computer buffs@ should come up with an inexpensive colour chart. We could all benefit by practising colour identification in clivias.

Harold Koopowitz has done research on identifying the colour chemistry of the clivia flower which will surprise all of us. We look forward to this being published as a scientific article and until this is done we will be kept in the dark about his results. Editor.

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#### Of mistakes, middle-aged men, colour and adrenalin

By Dries Bester

PO Box 75, Levubu 0929

#### 26 October 1999

My first clivia plant bought from a nursery in Vanderbijlpark (1981), was neatly tagged *AClivia nobilis@*. A few years and frosts later I realised it was a *C. miniata*. Years later, after joining the club (and having maltreated it like an agapanthus!) I knew I had a ACoromandel@ or Belgian broadleaved <u>cultivar</u>. Incidentally it and its offspring (vegetative) have never flowered up to now - probably a record for a cantankerous plant. It will most probably have a blue flower one day since it has experienced an identity crises. It may be an extreme form of botanical revenge.

After becoming a member I methodically and maniacally swept through every nursery for those clivias with Aspecial colours@ and bought up all miniatas with white, washed-out orange, pinkish-orange, picoteed, spotted, striped, wavy, irregular, blotched and whatever Aabnormal@ flowers or colours I could find. These eventually (95%) turned out to be normal, common orange and either suffered from lack of potassium or some other trace element because most were on <u>short peduncles</u>, even flowering between the leaves. It seems that when the umbels are constricted, the flow of anthocyanin is kept from reaching the petals - similarly most of the carotenoids are also kept from reaching the flower and only leucoplasts bluff one into believing in the lily-white, picoteed, etc. Awinner@ as an exceptional find.

New members, be warned against too much of Athe eagerness@ mentioned by the Editor in the last Newsletter. I did some introspection about this and, being of the male, middle-aged and retired members (as noticed at a meeting by the Editor) I wondered about my Aeagerness@ and tendency to go for the brightest orange and red clivias rather than the Apinkish@ and yellow types.

It is true that a range of interests cause people to grow clivias - most important perhaps, the ephemeral beauty which is generally seasonal. Then of course, the magnificent fresh colours!

This is when I thought about Bill Morris=s remark (Vol.8 no.3 p. 9) that Amost men are poor at colour identification ... and tend to have only one idea of each major colour and almost none of the various shades...@. Then I realised why most of my pastel/ Apinks@ are bought by women of all ages and why I never notice new shades in my wife=s hair when she is back from the hair-Ashrink@.

The colour of the clivia, that ephemeral joy, is probably what we wish to possess and as it does not last long (like those of dusty proteas in dry arrangements) we develop that seasonal eagerness. Therefore the eagerness. But whence the <u>over</u>-eagerness (and stupid choices we make)? Wolinsky (National Geographic Vol. 196 no. 1, July 1999: 75-78) says the colour <u>red</u> AQuickens the <u>heart rate</u> and causes the release of <u>adrenalin</u> A and that males Arespond most strongly to <u>reds with yellow</u> mixed in@ (i.e. vermilion/orange) while women prefer Ablue-based@ reds (i.e. crimson to pink).

Fine, now I am an adrenalin junkie. Researchers, he states, have also found that <u>orange</u> stimulates the appetite (at 107 kg I now know why my dear wife=s diets do not work for me) while <u>pink</u> suppresses appetite (lucky girls!). It might just be a good idea for members with school going children/students to pot up some ever-flowering yellow clivias for their rooms as yellow surroundings have been found to improve pupils= performance (intellectually, not rave-wise!).

Clivias are leading me to self-discovery and to understanding others (although the pink species remain difficult to comprehend!). I still wish I had a blue clivia ... nothing has been said about blue ... but then a pure, silky white ... can still not beat a flaming red...

#### Dries Bester.

Thanks for sharing with us the National Geographic ideas on how colour affects us and why different sexes prefer different colours. You bring up a very interesting point about flowers on short peduncles. These are very often those which flower out of season and many with short scapes do not show their true colour if they flower at this time. A question, Dries? How can you assume your first clivia plant is a Coromandel or Belgian Hybrid if it has never flowered? Ed.

..\*..

#### Mailed clivia seeds intercepted

From James and Connie Abel

89 Brampton Rd, Lynnwood Manor, Pretoria 0081

22 November 1999

Dear Meg

In the last two months we have had the disappointment of two packets of seed, sent from overseas, not arriving. In the first case, the envelope had been slit open, the seed removed and then the empty packet put into our letterbox. In the second case, there has been no news at all. In both cases, we have gone from pillar to post with the post office, continually being told to phone another number, seemingly in terms of the "Ah, but I am not the one" syndrome. Difficult to know which is the most severe - losing very interesting seed so kindly sent by friends or suffering under the extreme frustration of bureaucratic indifference and inertia.

Please advise all of our overseas friends to get a reference number when sending parcels to anyone in South Africa, so that one may have a slender chance of effective follow-up.

With best wishes to all,

Connie and James Abel

I hope that readers will take note of your suggestion and that no more seed sent from overseas will be delayed or disappear. Editor.

..\*..

## Is it a bulb or not?

Old Drainpipe, Golf course, Durbanville 7550

Dear Meg,

12 December 1999

I am not a member of your club and I am not a clivia grower. However, I heard that you are a very kind lady and I therefore take the liberty of lodging a complaint with you because I feel my constitutional rights are threatened.

As you may know, or perhaps don=t know, I spend my time digging for bulbs, my main source of food.

I was born and bred in the Durbanville area in the Western Cape. When I was a youngster there was an abundant supply of food everywhere, but as the years went by everything changed for the worse. The two-legged animals encroached on my territory everywhere so that I now have to go to the so-called built-up areas in search of food. In doing so, I have to negotiate very busy roads and run the gauntlet of vicious dogs.

I heard of the very lively Clivia Club in the Western Cape, whose members now grow these so-called bulbs. These plants, not being indigenous to the Western Cape, were unknown to me. By word of mouth I heard that Gert Wiese of Durbanville grows these plants in his backyard. Thinking that this may be a new source of food, I made my way one night to his property where I crept in under a gate and through the carport and I found to my delight, a number of plants in pots. These were strange plants to me, but I managed to decipher very badly written markers in the pots. These were the famous Clivia plants!

Upon tasting the leaves, I was very disappointed, so I tipped over the pot to look for the bulb, but to my dismay, I found only fleshy roots. I tried these but found them most unpalatable. So, after all this huge effort, I had to return home hungry, leaving behind a quill as a souvenir.

Please will you to stop calling these Clivia Abulbs@ as they have caused me great disappointment.

My family and I being black and white, are true South Africans, and as a protected species, I appeal to Club members to be more kindly disposed towards us and not to create false illusions through misnomers.

Yours sincerely,

A Porcupine (Mr)

I am very sorry that you were disappointed. Thank you for bringing to our attention the fact that the clivia has no real bulb. Club members, take note and protect your bulbs! Editor.

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## CLIVIA GROWER=S CATALOGUE FROM CHINA

We have little knowledge of clivia cultivation beyond the English speaking world. This was emphasised recently when our good friend Yoshikazu Nakamura of Japan sent us an excellent colour catalogue from Chinese growers. Over 100 clivia breeders with plants selected from their collections are featured in as many pages. Leaf form - short, broad and frequently variegated - is obviously very important, and there are some magnificent specimens. The photographs are accompanied by 58 pages of text.

Naturally, but regrettably for us, the catalogue is written in Chinese, but there is one page of English text which will be of interest to all members. The introduction is surely but an appetizer for the day when the Newsletter can obtain English copy from such Clivia enthusiasts in Asia.

Connie and James Abel.

## **CHINESE FAMOUS SCARLET CLIVIA BREEDERS & THEIR PRECIOUS VARIETIES**

#### "Introduction

Originally, Scarlet Clivia grows in the mountain forestry of Southern Africa. It is a perennial herb of Amaryllidaceae. Round about 1870, Scarlet Clivia was introduced to some countries in Europe and Asia. It has been cultivated in China for more than 100 years, and today, the cultivation and breeding technics are the best ones in the world.

At the beginning of 1950's, Chinese horticultural researchers made a considerable breakthrough in Scarlet Clivia breeding. The artificial assistant pollination on the same plant with different pollen was successful. From the end of 1960's to the mid 1980's, the researchers in China did cross combination with certain aims, and got the important success. A lot of new varieties of Scarlet Clivia were published such as "Monk with Painted Face", "Round Head with Short Head", etc. At the beginning of 1990's, the breeders in Anshan bred the fine variety - "Anshan Orchid" with combination of "Japanese Orchid" and

"National Orchid"; soon later, the breeders in Anshan, Shenyang and Changchun bred the following fine varieties, "Horizontal Orchid", "Bird Orchid", "Thin White Silk Orchid", "Buddha Light", etc. The publication of these varieties indicated the essential leap in the Scarlet Clivia cultivation, and promoted the commercialisation of Scarlet Clivia. This helps more and more people know and love the beautiful flower.

AAssemblage of Chinese Famous Scarlet Clivia Breeders & Their Precious Varieties" is carefully edited in order to meet the Scarlet Clivia lovers' need. The book introduces the Chinese Scarlet Clivia breeders and their varieties in a relatively comprehensive way, including the Scarlet Clivia's culture value, appreciation of the best varieties, botanical characteristics, growing characteristics, cultivation technics, diseases and insects controlling and pharmaceutical value, etc. It is a encyclopaedia of Scarlet Clivia, the Scarlet Clivia lovers can own it as either a reference book or a collection book. Among the Scarlet Clivia varieties introduced in the book, there are reward winners in the previous China Flower fairs, and gold, silver, bronze medal winners in the '99 World Horticultural Exhibition. All of these shows the highest level of the Scarlet Clivia in China today."

Harold Koopowitz tells us that Chinese and Japanese flower growers consider Clivia special plants and put them into the category ARan@ which when translated means Aorchids@. This is why many of the named varieties mentioned above have the name Aorchid@ in them. Editor.

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### EXCERPT FROM A CHINESE CATALOGUE ON VARIEGATED CLIVIA

By Shiang Shi and Song-liang,

Gee Ling scientific Publications, Chang Chun

Translated by Yu-Fu (Philip) Liu

Harold Koopowitz kindly let us have this rough translation which he says needs polishing, but in its present form it has a certain charm, so it has not been edited. The title of this Chinese brochure is AVariegated Clivia@ and there are sixteen typed pages of the translation, which gives a Forward, an Introduction, a Table of Contents and then deals with Varieties of variegated clivias, Management and culture, Breeding techniques, Indoor growing and Marketing Development. It is not possible to reproduce all sixteen pages in this newsletter, but seeing that we are on the topic of colour, it is appropriate to mention how variegated clivia became popular in China and how they were given the nickname of AGolden-Silk Orchids@.

### Introduction

Variegated clivia is a kind of clivia and belongs to the Amaryllidaceae and they are perennial blooming plants. Clivia is native to mountains of South Africa. According to documents they were rare until recently due to artificial propagation. Nowadays one can still find some wild growing clivias in SA botanical gardens.

In 1854 Europeans introduced Clivia into Japan and some countries like Japan and Germany have longer growing histories than China and they are more popular there. According to present documents and pictures early clivia are different, the leaves were narrow and long and the arrangement of the leaves was not orderly resembling the present varieties like >Big Victory= and >Smiling Modesty= or >Giggling Girl=. On the green leaves there were yellow or white parallel stripes not uniformly distributed, some plants are green while new growths are variegated and some are yellow and green stripes and some are totally yellow and some totally green.

March 1999

The culture of Clivia in China is relatively recent and it was not until the 1930s that Japan and other countries introduced them to China. At that time they were not for ordinary people and were for upper class. People started to grow them after the revolution (?1940) therefore the history of Clivia in China is 70 to 80 years. At the beginning no one had experience in growing Clivia and did not know about the sexual propagation, did not do any pollination, therefore only got flowers without seeds. People thought Clivias did not produce seed and could only be propagated by divisions. As expected, development was slow. Later on by accident people found insects flying from one flower to another bringing the pollen on their body and doing the pollinating work and eventually got seeds. After this people started pollinating and the development became faster. Under such circumstances the number of seedlings and the number of varieties was still small. It was even harder to get variegated ones. At that time people overlooked the variegated plants but every year when produced in larger quantity there were some variegated ones to be found. However, people thought they were diseased and threw them away. Some people kept a few of them for experiment to see what they would be when grown up. After several years they turned out to be normal healthy and like normal clivias they produced seeds and from these batches of seeds one could find a small portion of them also variegated and these seedlings, shiny under sunlight look like golden silk. Therefore people called them >Golden Silk Orchids=. All of a sudden >Golden Silk Orchids= became popular in the city of Chan Chung, as time went by some people produced variegation with different colours like white, yellow, grey and the name of >Golden Silk= could no longer cover the description therefore some growers proposed the name >Colourful Clivia=. In the 1980s all the northern part of China became very enthusiastic about Clivias, and also towards the >Colourful Clivias=

After the economy got better and more people were able to visit friends and relations overseas and therefore some people were able to bring back new varieties of variegated clivias. This not only allowed exchange between growers but also improved the growing skills. Now in the 1990s, the industry has become large scaled with big greenhouses and large protected growing fields. Therefore there are more commercial as well as hobby growers. Due to better selection and parent stock more varieties are produced. There are now several tens of varieties available.

In 1992, the authors went to Japan to study Clivias. We saw varieties in Japan, we thought, China has better. When we talked to the Japanese about Clivias they enthusiastically said, AAh so, we brought the plants to your country during the Manchurian occupation@ and we said, Abut you don=t understand the current development in China@. When I used Japanese to tell them the varieties we originally brought in and the new varieties we have now, they were all shocked. After we got back from the trip quite a few Japanese friends gave me their address and urged us to send them clivia seeds. They especially liked the variegated Clivia pictures so we sent them some.

Through this event, it demonstrated that China=s economy has developed very fast especially in the horticultural business which is commercialised and organised. This not only satisfied the domestic market needs but it also set up the foundation for internal markets. Unfortunately our

newspapers and journals do not do enough publicity and therefore other countries know little about the development of our horticultural business. We would like more publicity, more study on export markets, so that our excellent varieties of flowers can share an important role in this market. Only this can ensure clivias and variegated clivias further improvement.

It is possible that the early varieties were self sterile and therefore did not produce seed and it was probably only when other plants were introduced that cross pollination and therefore fertilisation took place. Editor.

### **ACTIVITIES OF CLIVIA CLUB BRANCHES**

### KWAZULU/NATAL BRANCH

### The Pietermaritzburg Show - 4 & 5 September 1999

Natal had their show first this year, by arrangement especially to allow the people with early-flowering plants to have a go at showing them. As two of my children live in Durban, I welcomed the chance to visit the show, and spend a few days with them. Sean Chubb heard I was coming and was kind enough to invite me to act as one of the judges. The other judge was Elda De Wit. As is now the norm for them, the hall was beautifully decorated. Brian Tarr saw to it that there were plenty of plants from the NBG, as well as some from private collections to provide a spectacular background to the exhibits.

As the show was on the early side this year there were no "Natal Yellow" types to be seen. What was there though, were three spectacular yellows grown by Pat Quinn from Nakamura seed. These plants are particularly big for a yellow, and they have large, imposing, characterful flowers. The plants are a trifle lax in their structure, and Pat Quinn should make an effort to select the more compact progeny from line breeding these beauties.

Naturally, with such magnificent specimens on view, the competitors did pale a little in comparison. However, one plant that could hold its own was the entry of Emmy Wittig. I think most of us have heard of this plant, and those of us that have seen it, have wished to own such a specimen. I shall not attempt to describe it, except to say it has one of the most subtle expressions of soft colour that I have seen in a clivia. These four plants are World Class, and Maritzburg can indeed be proud of them.

I would like to thank the Committee and the Members of the Natal branch for affording me such a pleasurable morning.

Nick Primich.

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### Results of the KwaZulu/Natal Clivia Club Show

Class 1 Miniata orange 1 umbel		3rd	Pat Quinn
1st	Dave Moon	Class 3a	Miniata yellow 2 umbels
2nd	Dave Moon	1st	Dave Moon
3rd	Dave Moon	Class 4 Miniat	a other colour
Class 2 Miniat	a orange 2 umbels	1st	Emmy Wittig
1st	Dave Moon	2nd	Des Andersson
2nd	Dave Moon	3rd	Pieter van Rooyen
3rd	Dave Moon	Class 5 Broad	Leaf, no flower
Class 3 Miniata yellow 1 umbel		1st	Alex McLeman
1st	Pmb National Bot. Gardens	2nd	Alex McLeman
2nd	Pat Quinn	3rd	Pat Quinn

Class 6 Broad Leaf with flowers		Class	16a	Any unusual form-2 umbels	
1st		Jean-Luc Bestel	1st		Dave Moon
2nd		Pieter van Rooyen	2nd		Dave Moon
3rd		Pieter van Rooyen	Class	18	Clivia in fruit
Class	7a	Variegated, no flowers	1st		Carole Beckett
1st		Val Thurston	OVERALL BEST		ST
2nd		Carole Beckett	Best o	on show	Pmb. Nat. Bot. Gardens
3rd		Val Thurston	Runne	er-up	Emmy Wittig
Class	10	Interspecific Hybrid	Best ir	n class	Des Andersson
1st		Pmb National Bot. Gardens	MOST	POINTS	
2nd		Pmb National Bot. Gardens	Dave N	Noon	32
Class	12	Pendulous - C. nobilis	Nat. Bo	ot. Gdns.	(Brian Tarr) 11
1st		Dave Moon	Pat Qu	linn	4
Class	13	Pendulous - C. caulescens	Val Th	urston	4
1st		Pmb. National Bot. Gardens	Carole Beckett		4
Class	15	Pot Plant 3 Umbels	Pieter	van Rooy	ven 4
1st		Dave Moon	Des Ar	ndersson	3
2nd		Dave Moon	Jean-L	uc Beste	1 3
Class	16	Any unusual form- 1 umbel	RAFFLE RESULTS		LTS
1st		Dave Moon	1	DH Mo	orcroft
2nd		Dave Moon	2	M Hein	e
3rd		Des Andersson	3	G Sma	rt - Levubu
4	G Chri	stiansen - Piet Retief	8	S Ahrei	ns - Hayfields
5	Hendru	un Beneke - Piet Retief	9	Hilton Atherstone - Tzaneen	
6	6 Joan Hopwood - Mtunzini		10	Gill Woods - Cowies Hill	

7 S Boorman - Howick

The KwaZulu/Natal show went off very well. There were 66 entries in total with really super displays done by Sean Chubb, Kim Fourie, Dave Moon and staff of the Pietermaritzburg Botanical Gardens. The

attendance at the show was good and there were a number of sales tables from which plants sold well. Some excellent specimens were displayed and hopefully there will be some good photographs of these.

Val Thurston.

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### NORTHERN BRANCH

### Northern Branch Clivia Club Show - 11 & 12 September 1999

The Northern Branch held their show on both days of the second weekend of September at the Menlo Park Primary School in Pretoria, an advantage over the previous location being that the plants were under cover in the school hall and there was also plenty of space for parking, stalls for sales and facilities for refreshments. The advertising campaign, organised by Wimpie van Rooy, which preceded the show was so successful that despite the cold weather and bitter wind, thousands of people turned up on the Saturday to see the exhibits and buy plants and there was a long queue outside the hall. Most of the plants offered for sale were disposed of in the first two hours after the show opened on Saturday.

Those responsible for the displays inside the hall placed the prizewinning plants at the centre, and the many other entries were placed on and around the stage. These were beautifully displayed in a natural garden setting with numerous ground covers and other background plants between them. This arrangement met with most people=s approval because it allowed visitors an opportunity to circulate around the central exhibits while at the same time enjoying those around the hall.

There were about 100 entries and many beautiful Clivia specimens were exhibited. The most spectacular plant on display was Anna Meyer=s pastel Clivia with 5 umbels which chose this weekend to reach perfection, and it was the source of much praise and envy by all. It deservedly won >Best on Show=. Those who saw the plant when it was first exhibited 2 years ago (after it had been taken from the garden with rather battered leaves) were able to appreciate the benefits of cultivation in a controlled environment. Apart from all the different cultivars which had previously been seen, there were also some very unusual browny-orange Belgian hybrid type clivias on show. When these plants have matured they too should be spectacular.

Of the nine thousand who attended the show, 107 became new members. Many helpers were involved in making the show the success it was. A few people made notable contributions: Chris Vlok, Wimpie van Rooy and Sarel Naudé were responsible for most of the organisation. Priscilla Swartz and helpers arranged the plants in the hall. James Abel was responsible for registering the show plants. There were two teams of judges under Tino Ferero which sped up the proceedings, but even then they were pushed to finish the judging in time. Kerneels Buitendag was in charge of the plant sales (and wished there had been more yellows available). Chris Le Grange was responsible for the security and entrance to the school, and Corra Smith and her team of helpers provided sustenance for the freezing horde. The overall takings for the two days was about R70 000 (this does not include expenses). Congratulations to the Show team. We hope that next year the show will be even bigger, better and more exciting.

Meg Hart.

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**Results of Northern Clivia Club Show** 

**SECTION 1 - MINIATA ORANGE** 

Miniata Orange - 1 umbel

Class 1a

Best	Annatjie Holtzhausen	Third	Margaret Ross
Runner-up	Bertie Guillaume	Class 3c	Miniata Yellow - 3 umbels
Third	Bertie Guillaume	Best	Louis Swanepoel
		Runner-up	Margaret Ross
Class 1b	Miniata Orange - 2 umbels	SECTION 4 - M	/INIATA PASTEL
Best	Annatjie Holtzhausen	Class 4a	Miniata Pastel - 1 umbel
Runner-up	Louis Swanepoel	Best	Anna Meyer
Third	Annatjie Holtzhausen	Runner-up	Anna Meyer
Class 1c	Miniata Orange - 3 umbels	Third	Koos Geldenhuys
Best	Dawie Strydom	Class 4b	Miniata Pastel - 2 umbels
SECTION 2 - M	IINIATA RED	No awards	
Class 2a	Miniata Red - 1 umbel	Class 4c	Miniata Pastel - 3 umbels
Best	Pat Gore	Best	Anna Meyer
Runner-up	Anna Meyer	SECTION 5 -B	ROAD LEAF NO FLOWER
Third	Pat Gore	Class 5a	Leaf up to 100mm wide
Class 2b	Miniata Red - 2 umbels	Best	Anna Meyer
Best	Anna Meyer	Runner-up	Alick Mc Leman
Class 2c	Miniata Red - 3 umbels	Class 5b	Leaf more than 100mm wide
No awards		No awards	
SECTION 3 - M	IINIATA YELLOW	SECTION 6 - BROAD LEAF+ FLOWER	
Class 3a	Miniata Yellow - 1 umbel	Class 6a	Leaf up to 100mm wide
Best	Margaret Ross	Best	Anna Meyer
Runner-up	Gert Esterhuizen	Runner-up	Hilton Atherstone
Third	Gert Esterhuizen	Class 6b	Leaf more than 100mm
Class 3b	Miniata Yellow - 2 umbels	Best	Annatjie Holtzhausen
Best	Gert Esterhuizen	Runner-up	Pat Gore
Runner-up	Gert Esterhuizen	SECTION 7 - V	ARIEGATED LEAF

Class 7a	Variegated leaf, no flower	Best	Koos Geldenhuys
Best	Bertie Guillaume	Class 9b	Miniature variegated leaf with
Class 7b	Variegated leaf with flower		any colour flower
Best	Anna Meyer	No awards	
Class 7c	Variegated seedlings	SECTION 10 -	INTERSPECIFIC HYBRID
No awards		Class 10a	Inter Specific Hybrid in flower, any colour
SECTION 8 - M	<b>MINIATURE</b>	Best	Koos Geldenhuys
Class 8a	Min. no flower - 12 leaves	SECTION 11 -	PENDULOUS SPECIES
Best	Koos Geldenhuys	Class 11a	Gardenii in flower
Class 8b	Miniature, any colour flower	No awards	
Best	Pat Gore	Class 11b	Nobilis in flower
Runner-up	Norman Weitz	No awards	
SECTION 9 - M	MINIATURE VAR. LEAF	Class 11c	Caulescens in flower
Class 9a	Miniature variegated leaf, no flower, at least 12 leaves	No awards	
SECTION 12 - MULTI PETAL			
SECTION 12 -		Class 14	Any clivia in flower with
SECTION 12 - Class 12a		Class 14	Any clivia in flower with rockery stones, driftwood, other plants, moss, etc.
	MULTI PETAL	Class 14 Best	rockery stones, driftwood,
Class 12a	MULTI PETAL Multi Petal any colour flower		rockery stones, driftwood, other plants, moss, etc.
Class 12a Best	MULTI PETAL Multi Petal any colour flower Pat Gore	Best Runner-up	rockery stones, driftwood, other plants, moss, etc. Pat Gore
<b>Class 12a</b> Best Runner-up	MULTI PETAL Multi Petal any colour flower Pat Gore Anna Meyer Anna Meyer	Best Runner-up	rockery stones, driftwood, other plants, moss, etc. Pat Gore Annatjie Holtzhausen
Class 12a Best Runner-up Third	MULTI PETAL Multi Petal any colour flower Pat Gore Anna Meyer Anna Meyer	Best Runner-up SECTION 15-	rockery stones, driftwood, other plants, moss, etc. Pat Gore Annatjie Holtzhausen ANY UNUSUAL FORM
Class 12a Best Runner-up Third SECTION 13 -	MULTI PETAL Multi Petal any colour flower Pat Gore Anna Meyer Anna Meyer POT PLANT	Best Runner-up SECTION 15- Class 15a	rockery stones, driftwood, other plants, moss, etc. Pat Gore Annatjie Holtzhausen ANY UNUSUAL FORM Any unusual flower
Class 12a Best Runner-up Third SECTION 13 - Class 13a	MULTI PETAL Multi Petal any colour flower Pat Gore Anna Meyer Anna Meyer POT PLANT 3 crowns, at least 2 in flower	Best Runner-up SECTION 15- Class 15a Best	rockery stones, driftwood, other plants, moss, etc. Pat Gore Annatjie Holtzhausen ANY UNUSUAL FORM Any unusual flower Anna Meyer
Class 12a Best Runner-up Third SECTION 13 - Class 13a Best	MULTI PETAL Multi Petal any colour flower Pat Gore Anna Meyer Anna Meyer POT PLANT 3 crowns, at least 2 in flower Anna Meyer	Best Runner-up SECTION 15- Class 15a Best Runner-up	rockery stones, driftwood, other plants, moss, etc. Pat Gore Annatjie Holtzhausen ANY UNUSUAL FORM Any unusual flower Anna Meyer Anna Meyer
Class 12a Best Runner-up Third SECTION 13 - Class 13a Best Runner-up	MULTI PETAL Multi Petal any colour flower Pat Gore Anna Meyer Anna Meyer POT PLANT 3 crowns, at least 2 in flower Anna Meyer Anna Meyer	Best Runner-up SECTION 15- Class 15a Best Runner-up Third	rockery stones, driftwood, other plants, moss, etc. Pat Gore Annatjie Holtzhausen ANY UNUSUAL FORM Any unusual flower Anna Meyer Anna Meyer Annatjie Holtzhausen
Class 12a Best Runner-up Third SECTION 13 - Class 13a Best Runner-up	MULTI PETAL Multi Petal any colour flower Pat Gore Anna Meyer Anna Meyer POT PLANT 3 crowns, at least 2 in flower Anna Meyer Anna Meyer	Best Runner-up SECTION 15- Class 15a Best Runner-up Third Class 15b Best	rockery stones, driftwood, other plants, moss, etc. Pat Gore Annatjie Holtzhausen ANY UNUSUAL FORM Any unusual flower Anna Meyer Anna Meyer Annatjie Holtzhausen Any unusual leaf form
Class 12a Best Runner-up Third SECTION 13 - Class 13a Best Runner-up Third	MULTI PETAL Multi Petal any colour flower Pat Gore Anna Meyer Anna Meyer POT PLANT 3 crowns, at least 2 in flower Anna Meyer Anna Meyer	Best Runner-up SECTION 15- Class 15a Best Runner-up Third Class 15b Best	rockery stones, driftwood, other plants, moss, etc. Pat Gore Annatjie Holtzhausen ANY UNUSUAL FORM Any unusual flower Anna Meyer Anna Meyer Annatjie Holtzhausen Any unusual leaf form Anna Meyer

Best	Louis Swanepoel	OVERALL SHOW WINNERS	
Runner-up	Corné Vlok	Best on show	Anna Meyer (Pastel - Peach)
		Runner-up	Annatjie Holtzhausen
SECTION 17 - ANY CLIVIA IN FRUIT		Third best	Gert Esterhuizen
Class 17a	Any Clivia in fruit	BEST IN SECTION	
Best	Pat Gore	Orange - Holtzhausen	
Runner-up	Annatjie Holtzhausen	Pastel - Anna Meyer	
SECTION 18 - CUT FLOWER		Yellow - Gert Esterhuizen	
Class 18a	Cut Flower	Broad leaf - Annatjie Holtzhausen	
No awards		Pendulous Sp	ecies - Koos Geldenhuys

# CAPE BRANCH

# Results of Cape Clivia Club Show - 18 to 21 September 1999

Class 1	C.miniata in flower (Orange)	Jim Holmes	
Ben Marais		Jim Holmes	
Ben Marais		Class 5	Clivia miniata in flower (any other colour other than
Jim Holmes			specified in Classes 1-4)
Class 2 Clivia	miniata in flower (Red)	Jim Holmes	
lan Brown		Jim Holmes	
Claude Felber		Jim Holmes	
Ben Marais		Class 6	Clivia species (excluding Clivia
Class 3 C. miniata in flower (Yellow)			miniata in flower)
Jim Holmes		Ian Brown	
Gert Wiese		lan Brown	
		Gert Wiese	
Sean Schicker	ling	Class 7	Cracess of Clivia cassion
Class 4 C. mir	iata in flower (Pastels)	<b>CIASS</b> 1	Crosses of Clivia species
Jim Holmes		3. Jim H	lolmes

Class 8 Clivia variegated foliage		Class 11	Specimen plant in bloom		
Jim Holmes		Gert Wiese			
Gert Wiese		Toy Jennings			
Jim Holmes		Jim Holmes			
Class 9	1	C. Min Broad leaf in flower	Class 12	Any unusual Clivia	
Sean Schickerling		Ben Marais			
Gert Wiese		Gert Wiese			
Jim Holmes		Gert Wiese			
Class 10 Clivia miniata in flower or fruit		Class 13	Seedling flowering first time		
		(miniature)	Sean Schickerling		
2.	Jim Ho	Imes	John van der Linde		
3.	3. Jim Holmes		lan Brown		
BEST ON SHOW					

Ben Marais - Clivia miniata in flower (Orange)

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### CAPE BRANCH AGM (27 November 1999)

The Cape Branch held their AGM on 27 November 1999 at Kirstenbosch and this time it was held at the Stone Cottages, a most delightful setting amongst the trees. About 50 members attended and a number of new members joined the Club. We now have 296 members, and we are very proud of this. Thank you to all members who recruited new members, please keep up the good work.

Our Chairman, Mr John Winter, gave a very comprehensive report, and he was thanked for the good work. Our show in September was a great success, and 92 members were recruited at the show. Ian Brown gave the financial report confirming the soundness of our financial position. Toy Jennings gave us feedback on membership and this is very satisfactory and encouraging. Mick Dower gave us feedback on seeds and plant sales, and I must congratulate our storekeeper for his enthusiasm and efficiency.

The following new committee was elected: John Winter, Ian Brown, Claude Felbert, Toy Jennings, Gert Wiese, Jim Holmes, Quentin Jansen, John van der Linde, Theo Beukes, John Sadler, Gerrit van Wyk and Roy Danford. Joy Woodward will act as secretary.

After the meeting we had a very enjoyable bring and braai. There was plenty of time to talk on all the different topics and to solve the problems of our country!

Gert Wiese.

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## FOR SALE

From the Clivia Club:

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.)

Copies of back volumes. These are available from the Public Relations Officer.

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).

**ATHE CLIVIA@** by VA Thurston. R100,00 a copy. Cost of book **plus registered post**: South Africa - R110,00 (signature on delivery); UK - ,25; USA - \$35; Australia - \$55. Allow ∀ 3 weeks for printing and delivery. **Address:** Mrs V A Thurston, PO Box 3181, Westbrook 4400, South Africa. **Phone no.** (032) 943 1316 after 4pm. **E-mail**: thur001@iafrica.com

*Clivia miniata*, pendulous species and specialities e.g. Multipetals - mature plants and seedlings available. Connie Abel, 89 Brampton Rd, Lynwood Manor 0081. Tel (012) 361 6406.

*Clivia miniata* F<sub>1</sub> (yellow x orange), Apinks@ 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* plants for sale, 3 years old, R5,00 each out of ground. Contact Roly Strachan, Box 57, Highflats 3306 or phone or fax (039) 835 0085.

**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

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# BEGINNER=S LUCK - When will my Clivia flower?

It is generally thought that a Clivia in its natural state will flower for the first time in its fourth year. However, many factors play a part - genetics, climate, aspect, type of soil, moisture content, amount of humus, trace elements in the soil, and probably many other factors. A Clivia growing in warm, moist, well drained soil (acid and composty) in dappled shade is obviously going to flower sooner than one in a cold, dry, shaded environment with poorly drained clay soil. Competition from other plants or trees or ravages by insects may also influence their progress.

In traditional commercial practices in Europe most plants will flower in their third year. However, if plants are grown at higher growing temperatures they can be encouraged to flower after 14-16 months. This is

of considerable importance in commercial ventures because of production costs. The second and subsequent flowerings will occur after each set of 4 or 5 leaves. In these situations all Clivia are subjected to the same environment, so there is less chance of unsuitable environmental factors affecting flowering. The plants are grown in individual pots in a suitable soil medium and are fertilised at regular intervals with granular fertilizers or foliar feeding.

However, there are some guidelines as to when a Clivia will flower for the first time. Research done by Johan van Huylenbroeck in Belgium showed that a Clivia flowers for the first time when the plant has 12-13 leaves. Shiang Shi and Song-liang from China mention that 14 leaves are required before they start to bloom. Hermann van Rensburg, a big grower near Louis Trichardt, has found that the diameter of the stem is of greater significance than the number of leaves. In his experience a Clivia will flower for the first time when the base of the stem has a diameter of 25mm or more even if it has fewer than 12 leaves.

Van Huylenbroeck found that temperature or supplementary lighting does not influence flower **initiation**. However, flower bud **development** and **scape elongation** can be influenced by light and cold treatments. Additional lighting will assist in the **development** of flower buds and cold treatment for at least 45 days at 10°C results in good **scape elongation**. Buds deep inside the stem will only react to this stimulus if they are more or less 20 mm long and treatment should not be done before 15 September in the Northern Hemisphere. An equivalent date in the Southern Hemisphere would be 15 March. It has been found that cold winters stimulate scape formation and this explains why plants which flower out of season often have very short scapes.

It is now fairly well established that the coastal locations such as those of Zululand and the Natal North Coast have too little variability in temperature to ensure a proper flowering season, although occasionally a cold front will creep up the East Coast and temperatures will plummet making Clivias reconsider their climatic environment. The result of the persistent warm weather is that many Clivia growers find intermittent and erratic flowering of their plants because they can=t decide whether they are in summer or in winter. Those places with cold winters such as the highveld regions escape this confusion and we all know Clivias in these areas are remarkably predictable in their flowering habits.

Even if grown under the same conditions, Hermann van Rensburg finds that some of his plants remain thin and straggly and do not even flower after seven years. He recommends that they be scrapped in favour of those which reward one sooner with their beautiful blooms. Use particularly vigorous and early flowering stock for breeding purposes. Yellow Clivias also tend to be a bit slower coming into bloom, so please be patient and don=t throw them away too soon.

Meg Hart.

### References

Van Huylenbroeck, JM. 1999. Commercial production of *Clivia miniata* Regel: Control of plant development and flowering. *Clivia* >98.

Shiang Shi and Song-liang. 1999. Variegated Clivia.

Van Rensburg, H. 1999. Personal communication.

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### ON THE COMPOST HEAP

Now I suppose everyone will be out counting the number of leaves on their Clivias to see whether they are going to flower this year or not! You may need a greenhouse to keep your plants at a reasonable temperature in winter to encourage them to flower in their third year, but then you also need that cold period for your Clivia to form a good scape! It is all very confusing.

2 THE COMPOST

Clivia growers who live in areas with mild winters like the KwaZulu/Natal coast should contemplate building cold rooms. They could then chill down their Clivias to encourage long peduncles.

Lily Borer (Brithys crini pancratii)