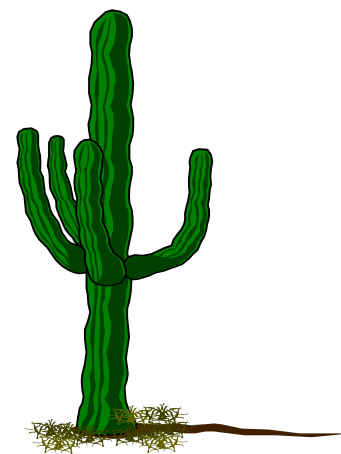


Oxotica

The Newsletter of the Oxford Branch of the British Cactus and Succulent Society

December 2001

Volume 6, Number 2



FROM THE CHAIRMAN

We have had a busy and eventful year and I think we have every reason to be pleased with the way things have gone. We are a branch which should be proud of our achievements. We have four members who are fully-fledged judges and we must congratulate Gareth Darbon on passing the tests and becoming maybe the youngest ever judge.

Our Summer Show was truly great. The International Asclepiad Society joined us and had a special section for their plants. At the end we had a lecture from John Lavranos which was a great privilege and which everyone enjoyed; we all benefited from his knowledge and I think gained greater understanding from his pictures - so many plants live in more extreme conditions than we in this country can imagine. John's presence brought visitors from far and wide, and even from other countries, to our Show. We are thinking of having well-known speakers at other shows in future.

Next year we will again be having two shows, the first in July will be devoted entirely to Cacti, and the Tephrocactus Study Group will probably come in with us for that. Then in the autumn the Mesembryanthemum Show will be for Other Succulents only. We are going to see how this works out, a big advantage being that it will give more space for the plants.

Many of us attended a very successful Zone Lunch at which Rodney Sims spoke on his other enthusiasm of Conservation and work at the College Lake Nature Reserve. What dedication! We all enjoyed the opportunity to meet socially with members from around the Zone, but we would like to have seen other members there as well. Do please try to link up with us at various events and of course at our monthly meetings. We often go to Conventions and Shows of other branches and benefit greatly from the contact and of course the opportunity to buy plants! Don't forget that we have plant sales at our monthly meetings as well. Other branches are always glad to see us and make us very welcome, and they in turn are encouraged to visit us.

This is a quiet time of year in the greenhouse, but it is also a good time to catch up on some of the chores. With some of the other succulents it is particularly important to check for fallen leaves which can give rise to mildew if left. However if you are like me, you will spend a lot of time in the greenhouse just looking at your plants, so you are not

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likely to miss out on these little jobs which make such a difference when the spring comes. Because my greenhouse is somewhat shaded from the early and late sun, I am experimenting with a Growlight to lengthen the day in the hope that it will bring some benefit to the plants which, in particular, have more equal-length days and nights. By the same token, perhaps I should shorten the hours of daylight when the summer comes! It would be interesting to hear about your ideas and experiments as well.

(See Curt Lamberth's article on p6 - Ed.)

A Happy Christmas to everyone and a New Year of good growing and, as I am sure you now expect me to say, participating in Branch and Society affairs!

Mary Stone

WITNEY OPEN SHOW SUNDAY 15TH JULY 2001



When Cathy told me (she rang to check I was still alive) there were over 500 entries, I knew it was likely to be a tough day on the morrow. But I underestimated the problems! The competition was intense!

With all the exhibits staged on time (congratulations to the exhibitors and stewards), we started early: Julian Cooke (a fully qualified judge in need of practice and a confidence boost) began with the Section 2 and I got to grips with the IAS classes. We were both astounded by the quality of the plants. We joined up to judge the rest: I feel that two opinions are better than one, particularly if they agree.

As usual the Mammillaria Group classes stretched the mind. There were so many good plants. I can remember only one class where we found the plants placing themselves — the Cristate/Monstrous class — but there are not many cristate Ceropegias around the size of the winner!

Please excuse me if my day was not made by the main show. All those who attended were privileged to see really exotic Asleps. which, as a lapsed grower and still admirer of the family, I found uplifting — Edithcolea just back from its summer hols in the sun, Pseudolithos not only large but double headed, Pseudopectinaria malum in full flower... I will not go on.

The final event of the day, a talk given note-less with consummate ease and clarity by John Lavranos, had everyone on the edge of his or her seat waiting for the next slide with eager anticipation. It was a fitting end to a marvellous day. Tiring yes, but what memories it leaves.

The smooth organisation brought you much credit. Thanks for inviting me.

Rodney Sims

FORTHCOMING MEETINGS

24th JANUARY *David Greenaway*, our respected Oxotica Editor, has very kindly agreed to start the year off with a talk about the Canary Islands. This will be David's first succulent talk, but he is no stranger to confronting an audience, and has visited some of the Canary Islands. Anyone who has been there will wish to compare notes; while anyone who has not will learn a lot about where to go and the best time in the year to visit.

28th FEBRUARY *Cathy Darbon* will be giving another of her mini judges courses. Now is the time to start thinking about these things at the start of the season.

28rd MARCH *Ralph Martin*, who is Chairman of South Wales Branch and Professor of Computing at Cardiff University, will be coming to speak to us about "Mesa Gardens". All of us have plants which have been grown from seed supplied by Steven Brack at Mesa Gardens, which is in Belen, near Albuquerque in New Mexico. Not many of us have been there, however, and it will be a rare opportunity to see the work of one of the great conservationists.

25th APRIL *Jeff Ollerton* established himself as a favourite of the Branch with his exciting talk about the pollination of asclepiads, and had so much more to tell us that he simply had to be invited back. Not only has he been on recent field trips to Gabon, Guyana and Borneo, but he expects to have some brand new material from Peru where he is going in January.

23rd MAY *Paul Klaassen* is one of the brightest stars in our firmament. He is not only a Branch Secretary and a Zone Rep (a

mundane dogsbody) but a dedicated traveller and expert in cacti, and is widely regarded as one of the best lecturers in the business.

He will be telling us about "Chile". This will be one of those special lectures which should attract members from other Branches.

27nd JUNE The delightful *Joyce James*, who has been the driving force behind the most excellent North Wilts Branch and is the recently appointed successor to Rene Geissler as Zone 9 Rep, is going to treat us to "Blooming Plants" illustrated by "whatever happens to be in flower at the time" she says. A fun evening. Please bring your own plants in flower for the table show

John Watmough
Secretary

WANTED

Has anyone got a spare 'Cactus File' folder to sell? If so, please contact David Greenaway. His telephone number and email address are in the box below.

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The Branch meets at 7.30 p.m. on the 4th Thursday of each month (except December) at the John Bunyon Baptist Chapel, Cromwell Road, Cowley, Oxford.

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OXFORD BRANCH SHOW 15th JULY 2001



Sheila Collenette, Len Newton, Tom McCoy, John Lavranos and John Wood.

Photograph by David Greenaway.

Well what can I say about the show, we managed to squeeze in 530 entries into the hall and the standard of exhibits was second to none; some plants were of National Show standard. It was a great team effort. Although the entries for the IAS section were a little disappointing, the lecture that followed was well worth staying on for.

We were surprised by some unexpected guests that turned up - Sheila Collenette, Tom McCoy, Len Newton and three visitors from Kew.

Any show relies on the exhibitors and I am grateful to all those that came and supported us from Coventry, Harrow, North Wilts, Birmingham, High Wycombe, Swindon, Bristol, Southampton, Gloucester, Reading and Lincoln. The ladies in the kitchen worked extremely hard to keep us all fed and watered and the plant sales did a roaring trade. The main prizes awarded were: -

Best Cactus	Mammillaria species	Chris Cooper
Best Succulent	Agave utahensis	Hazel Townley
Best Asclepiad	Pseudolithops migiurtinus	Dr Gillian Evison
Best Cristate	Ceropegia stapeliiformis	John Warwick
Awards of Merit	Lobivia ferox	Diane Tripp
	Ariocarpus trigonus	Dr Gillian Evison
	Exhibit of 3 x 3 1/2" Mammillarias	Dave Porter
	Tylecodon sinus-alexanderi	George Bradley
	Gasteria excelsa	George Bradley
	Dorstenia gigas	Dr Gillian Evison

All the hard work and planning of the committee made this a very successful event and the format of a speaker after the main show was well received by all those who attended. We are planning something similar for 2002 (see the next article - Ed).

*Bill Darbon
Show Secretary*

SHOWS IN 2002

Next year the Branch will be putting on a summer show and an autumn show. Bill Darbon has already provisionally booked the Langdale Hall, Witney, for both events, and members are invited to help on the day if they can, or attend if at all possible, or if not, to do a bit of local advertising.

Summer Show 14th July 2002.

Following the Branch's success last year in staging the first ever International Asclepiad Society Show, the Tephrocactus Study Group have enthusiastically volunteered to come in with us and put on a Show of their own under our auspices. A schedule of twenty classes has been provisionally agreed, and a suitable high-profile lecturer is being sought from the available continental specialists for the after-Show event. At Bill's suggestion, we have decided to make this show an All Cactus Show. The Committee debated this at length, and ended up very positively in favour of this, because it will enable us to exercise a lot more flexibility in defining the classes, so that, we hope, exhibitors will come from far and wide.

Autumn Show 13th October 2002.

This will be run on the same lines as our Autumn Show in 2000. It will be for Mesembs and Other Succulents, like the Bristol Shows in 1999 and 2001. We believe that our 2000 Show was a successful venture, which has led to our establishing a reputation with other specialist societies. The Secretary or the Show Secretary would very much like to hear any views from Branch Members or visitors about past Shows and our plans for the future.

The idea has been floated for some time among members of the Shows Committee that the National Show might itself be split into two separate shows, one for Cacti and one for the Other Succulents. One argument is that it would be easier for

a Branch or group of Branches to organise and to find a suitable venue. For this reason, the National Shows Committee will be taking a particular interest in how our two Year 2002 Shows turn out. Curiously, the idea is not new. Brian Makin, writing about the London Cactus Club in the immediate post-war period (Bulletin of the African Succulent Plant Society, April 1967, quoted in Haworthiad October 2001, received 26th November 2001), says:

"...On my suggestion, the annual (Show) was divided into two parts with cacti in June and all the other succulents in October. Thus many more plants were put on display over the year to the benefit of our fellow members.... Thus we saw a much wider range of species."

John Watmough
Secretary

BOTANICAL ILLUSTRATION

Following Maria Hayden's demonstration of the art of Botanical Illustration at our AGM on 22nd November, Members may like to know that several local Community Education Centres offer this subject.

At the time of writing, classes are held at Littlemore (Oxford 712094), at Bicester and at Woodstock. For further information either contact EASOCEC on the Littlemore number or ring John Watmough on Oxford 772709.

At some of its monthly exhibitions in Westminster (short walk from Victoria Station) the RHS puts on a magnificent display by botanical artists. For further information please ring Brian Conway on Oxford 765800.

SERAMIS FOR PROPAGATION

Might I be permitted to add my own practical observations to the great Seramis debate that Curt Lamberth so ably set in motion? Personally, I have found Seramis to be too expensive to use as an additive to normal compost, so I have restricted its use to the raising of seeds and cuttings. Even then, I have preferred to mix it fifty-fifty with normal compost, so that there is some initial nourishment in the medium. These are the results so far:

Cuttings

One *Haworthia woolleyi*, previously refusing to grow:
Ceropegia stapeliiformis, both cristate and normal:

Stapelia kwebensis

Aeonium 'Zwartkop'

Lophophora texensis

Mammillaria luethyi (three specimens)

(Note- these were very small cuttings.)

Mesembryanthemums from the following genera:

Braunsia, *Conophytum*, *Corpuscularia*, *Delosperma*,

Orthopterum, *Titanopsis*.

Rooting.

Both rooted so fast that it looked as if they never stopped growing. Big roots in three days!

Rooted immediately.

Growing within 14 days.

Rooted within 14 days.

Rooted within 14 days.

Very fast.

Seedlings

Aloe vera

Ceropegia woodii

Dioscorea globosa

Euphorbia juglans

Euphorbia stellaespina

Othonna cuneata

(New clones in cultivation!)

(Who would grow these from seed?)

Fifteen plants from fifteen seeds!

Hybrids of unknown paternity.

More germination after taking pot out of plastic bag.

These results have convinced me that Seramis is a valuable addition to the resources available to a propagator, and might make the difference between preservation and loss of something rare and valuable. In some countries they use pumice, which probably has a similar texture and water-retaining capacity. John Henshaw says that a cheaper version of Seramis is Tesco's Premium Lightweight Cat Litter if you don't mind the scent and you can keep the cat out of the greenhouse.

John Watmough

ARTIFICIAL LIGHTING FOR CACTI

By Curt Lamberth

Why not use artificial light?

The UK is well known for its dull rainy climate and pasty-faced inhabitants. Its climate affects

our growing season in having long summer days (too hot in a greenhouse) and long cool and damp winter days (our plants rot).

Artificial light can be used to:

- Induce flowering, even on dull days.
- Extend the growing period, especially for *Ferocacti* that tend to develop flower buds later on in the year.

- Enable year round propagation from seeds and cuttings.

The one main drawback is that it is expensive in terms of energy to generate sufficient light of the right quality to get plants to grow.

Furthermore, the efficiency of photosynthesis in succulents is lower so it's like heating a house just to keep one room warm – a really inefficient process. Remember that the light you generate is pure energy!

Where do you start? – Supplementary Daylight

The most efficient way of using artificial light is to supplement natural light. In this way, dull winter days can be turned into bright summer days. This method is more efficient and cheaper to run. However, low rate, night (Economy 7) electricity cannot be used, and more complex control systems are needed.

The lamps you choose should provide a broad spectrum weighted towards the blue end to keep the heat levels down such as dichroic quartz-halogen and fluorescent lamps. Metal halide and sodium lamps **should not** be used because the control circuitry switching would damage the lamps in a short time unless they are turned on for long periods of time.

To be efficient, you need to get the lamps to light when the natural light levels drop below a threshold level (say on a dull day, or in the early morning and late evening). But the lamps should turn off

- a) when the natural light levels are high (in sunlight), or you'll burn your plants, and
- b) when it gets dark (or you'll annoy your neighbours).

Timers are not recommended as you have to re-programme them every so often. As far as I know, there are no cheap systems on the market to do the job, and I had to build the circuitry myself for about £30.

The results so far are excellent. I have been using low voltage (12 volt) quartz-halogen spot lights to illuminate a small area of mixed cacti including *Melocacti*, *Discocactus*, *Uebelmannia*, *Cleistocactus*, *Ferocactus* and *Turbinocarpus*.

Artificial lighting

To replace natural light completely you need to consider both the quantity and the quality of the light.

The **quantity** of light is the amount of energy per unit area and is in units of **lux**. The output of lamps is quoted usually in **lumens** which is the total light output, and for a point source, this radiates out in all directions as a sphere. The calculation of lux (for photosynthesis) requires knowledge of the number of lumens from the lamp, the distance from the lamp and the type of source (point, cylinder/line, with or without reflector). **Don't panic:** Although the method of calculation will be discussed, tables of pre-calculated values have been included for simplicity.

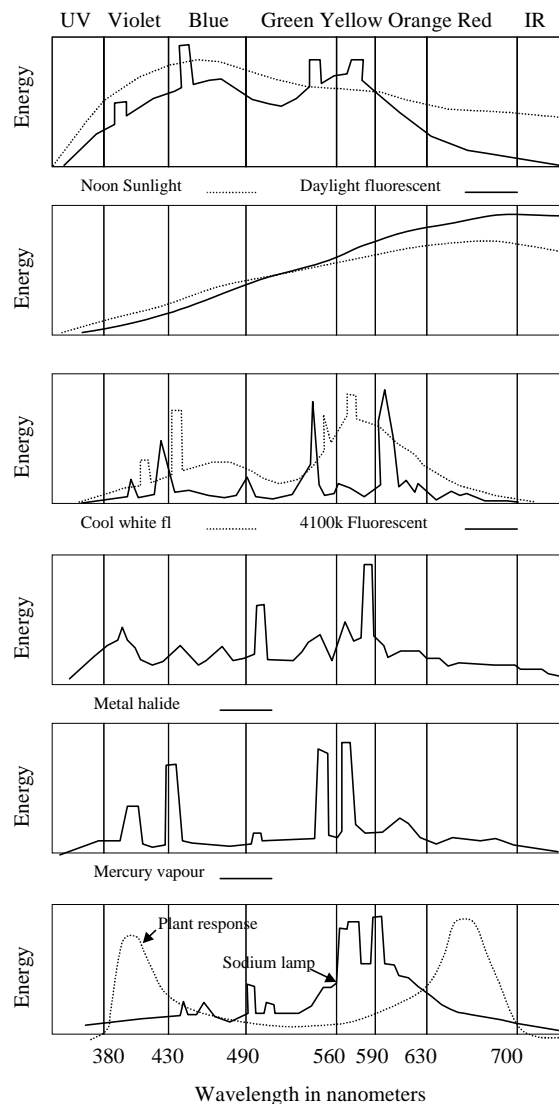
The **quality** of the light is the spectral response which is the relative power (or strength) of light of different colours (or wavelengths, or frequencies) that make up the light. It is the same as splitting up white light into a rainbow of colours using a prism. The spectral response of lamps is usually present as pretty coloured graphs or dull tables. Plants respond to different colours of light in different ways. Remove the far red light (700 nm) and the plants will grow short. Increase far red light and the plants will elongate and grow tall. Light duration (or lack of it) and colour will also influence flowering.

Which lamp should I use?

Do not ever consider normal tungsten filament lamps (incandescent) used for lighting our homes – they're completely useless for growing plants unless you just want to warm them up. Beware of 'plant lamps' that are sold in garden centres – they look like a blue lamp, are cheap and are not suitable for succulents.

You need to answer the following questions to work out which lamp you need to use for growing indoors under artificial light. As you answer each question, write down the recommended types of lamp in a list. MH is Metal Halide (usually 400 Watts upwards) and FL is Fluorescent (maximum per strip usually 40

Figure 1 The spectral quality of different light sources and the photosynthetic active region (PAR) for plants.



to 60 Watts). The lamp that occurs the most is the lamp of choice.

1. Are you going to raise seedlings? On a small scale (less than 1 m²) use FL, on a large scale (>1m²) use MH.
2. Are you going to extend the growing period of mature seedlings or adult plants? If yes then use MH, if no, then use FL.
3. What is your capital budget? Up to £50 use FL, up to £150 use MH.
4. What are acceptable running costs? 500 W MH = £120 per year. 250 W = £60 per year. 125 W (FL) = £30 per year. Based on 10 hours per day at 7 pence per kWh.
5. Do you have the space? Do you have at least 1.5 m of headroom above your plants, if so then you can use MH, if not, then consider FL.
6. Do you have sufficient power supply capability at the proposed location? Note that most heaters are 1000 to 2500 W and MH lamps are 500 to 1500 W and all MH lamps require a high starting current (power). If yes then MH, if no then FL.

To be concluded in the next issue...

