British Cactus & Succulent Society

Southampton & District Branch Newsletter

June 2024

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Editorial

The evenings are lighter now and it's quite bright, even at 9pm. This will extend for a few more weeks but in a month the days will have to start getting shorter again.

Last Month's Meeting

I missed the first few minutes of the last meeting so don't have much to report here. The branch did hand out a free plant last month and if David has any supplies left, he may bring along spares for people who were absent last month. The plant is named below.

I'll also mention that the branch website has been updated to show the meetings for the rest of the year and also for the first half of next year. Finally, I'll be giving a talk to the branch on Internet resources for Cacti and Succulents later in the year – so if you have details of any good or useful websites that you use regularly – please do send me the details (send email to sotonbcss@gmail.com), and I'll consider whether to mention them when I give my talk.

Annual Cultivation & Propagation Evening

David mentioned that there are some free plants (*Echinocereus reichenbachii*) for all the members in the tray on the heater. There's also some brown paper bags there. We normally give out potted plants, but these were just growing in trays, so he uprooted them yesterday. They'll be fine if you don't get around to planting them until the weekend or even a couple of weeks, probably. They do predict some hot, sunny days now, so just keep them somewhere protected and pot them up into your preferred compost, and then we'll see how you get on with these in a year or two.

We had asked people to bring back some of the plants we've given out in previous years, probably for 10 or so years. I only named the two we've given out since covid, First was *Rebutia perplexa*, handed out in 2022 and this was David's own plant which had got some red spider last year. Next was Cath's plant which had got lots of little buds forming but it hadn't grown much. David commented she had been a bit mean to the plant and she admitted she had only watered once this year and also not provided any food. It was also growing in a small clay pot and Cath admitted that although she had grown a lot of things in those, they are hopeless because they dry out too fast. And then we had two plants which looked like a matching pair - David guessed they were Mark and Rebecca's plants and he was correct. Mark's plant was smothered in buds and David said that in a week or so, the plant would be covered in the most beautiful shell pink flowers. David mentioned by next year it would be in a four and a half inch pot or something, because there's so many offsets forming. He said Mark had grown it very well.

The plant we gave out last year turned out to be a bit of a monstrosity. It was named *Crassula* cv. "Silver Spark" and it was supplied in 2 inch (5.5cm) pots, and most of the pots had 2 or 3 seedlings and most of us would have just potted them up. David said 2 out of 3 grew for him but his plant was looking very unattractive - some of the others had remained more compact and looked a lot better. One was really nice. It's grown nice and compact. But it hasn't flowered and yet these ones which have barely grown or only grown very little have all flowered. So maybe providing more nutrients, more food stops the flowering. Cath's has got a bit more colour - and Crassulas in habitat in South Africa are really colourful, with colours like really bright oranges and reds. And I think yours is turning that colour which is potentially a sign that its quite stressed. Stress is a good thing for some succulents but it's hard to tell. Sometimes they could go through an ugly duckling stage and it might then eventually grow into something rather nicer. I don't know where all the other 30 of them are. Have you all killed them? Geoff said his was horrible-looking and he didn't bring it in. Tom said he had put his into three pots and that's why it had grown bigger. David said he

wondered if anyone hasn't brought theirs because it's too big to get in the car? Whose is this one? That's suffering from lack of light. It was Paul Maddison's and he admitted it was not growing near a window. It needs to be in the greenhouse. David said it was leaning towards the light but it should improve if you can give it more light.

There were some other plants here that we had given out in earlier years. The most striking of these was *Mammillaria plumosa* and it said 2019 on the label. These were all given out as plants in 5cm pots from a tray from a Dutch nursery. They were all virtually identical and they weren't filling the pots, but just look at the difference now. One was still single headed (in a clay pot again). I think if that had been potted up and been in a plastic pot and given more food and water it would have offset by now. David said he'd never seen a plumosa that doesn't offset sooner or later. Mark and Rebecca only had one plant this time and Mark mentioned Rebeccca's had turned to mush. But the remaining plant was beautiful. They often flower around December or January with flowers that sometimes find it hard to come through the spines. One of the plants had grown beautifully and it had bigger heads. But they're all from the same tray of seedlings - not necessarily from the same seed pod - but the same seed packet I'm sure.

The next plant was *Euphorbia obesa* which had been handed out in 2016. This is a South African succulent with a characteristic shape, and they had grown beautifully. *Euphorbia obesa* can be either male or female and David said that by the habit of these, they both look the same sex and are probably female, but the flowers had not developed yet and that would confirm it. He proceeded to say "I don't want anyone to read anything into anything I'm about to say, but the females are shorter and rounder and the males are often a bit taller and narrower." Some giggles followed, causing him to add "You're all sexist. I didn't mean anything by it." Some of the plants had brown marking at the base and David said that's just aging, they don't all do it. There's always some that are probably marked up higher up than others, and that's the case with lots of cacti and succulents. And when you see it on a show bench the judges are obviously going to prefer the one that hasn't got the aging marks. Sometimes it's damaged and marked but other times it's just natural aging that causes the epidermis to discolour. Some of these were beautiful plants, in show condition.

There was also a *Frithia pulchra*, which is a plant we gave out back in 2015. Frithias are not long lived plants but they are beautiful and they have lovely purple flowers. They are related (remotely) to lithops. Actually most people don't grow them well because they don't water them enough - Frithias like a lot of moisture whereas most mesembs detest too much moisture. Another plant was a Gymnocalycium which David said was *friedrichii* but which was handed out as *G. stenopleurum - G. mihanovichii* also looks very similar. This was Ted Smith's plant and it was the only one of this plant that had been brought in. It was handed out in 2018. David said *G. mihanovichii, G. damsii* and *G. friedrichii* are not so easy and they never get very big. It's the bigger stronger growing Gymnos that are much easier to grow. David said these come from Paraguay and don't like cold conditions. Some of the other easier Gymnos are from higher altitudes in Argentina and they can take it much colder.

David handed over to Richard who said he had volunteered to say a few words to get the discussion going on heating and lighting. And the reason for that was not because he was an expert on it or knew anything much about it, but because a chap called Carl Garnham had written a couple of articles for a newsletter he edits for the South African bulb group. Carl does grow succulents as well, and Richard thought the articles might contain some points of interest to us. You can read those articles online at the site https://rwhite.uk/doku.php?id=bcss:page

What's interesting about the notes is that Carl is an electrical engineer with professional expertise in heating and lighting. So when he talks about heating and lighting we assume he knows what he's talking about. Just taking heating first, it's mostly about heating on a small scale. Carl talks about the accuracy of thermostats. He introduced us to a word - hysteresis. Now if you know what hysteresis is, you can talk about it and impress everybody that you talk to. But basically it's just where heating devices that are controlled by thermostats tend to overshoot so they start heating up and then they don't turn off until the temperature has risen higher than you want it to be. And then when the temperature drops it can drop lower than you want it to be before the heating actually comes on again. And he talks about the reasons why that might be. But then he goes on to point out that although there seem to be people who are really keen on finding the most accurate possible thermostat that just switches off just when it's just risen slightly and then when the temperature drops by just half a degree or something it switches on again, he says that is a waste of time because plants aren't that fussy about the exact temperature and if you're trying to germinate seeds then they very often germinate better if you have some variation, so that it's colder in the night and warmer during the day.

So he is basically saying don't worry too much about how accurate your thermostats are.

What I uses in the conservatory is one of these electric fan heaters (it was labelled BioGreen Phoenix) and it's not completely silent but if he's not in the conservatory he can't hear it. So this is one you can set to different wattages - 1000W, 1800W or 2800 Watts which is the maximum that a 13 amp plug can handle. Geoff Penrose said it was the same as the one he has, and he sets his for 40°F. Richard said they are quite good and you can either stand them on their feet on the ground in the greenhouse or you can take the feet off and there's a couple of loops so you can hang them up higher up if you want to. David asked if the thermostat was built in and the answer was yes. Now normally it's not a good idea to have the thermostat right next to the heater because the first thing the heater does is heat up the thermostat and then it switches off. But because it's positioned there and the air is blowing through in a sort of continual current of air, the air is actually blowing over the thermostat so it seems to work fairly accurately. Geoff said the price had gone sky high and it originally cost £120 but an online search indicates it's double that now. These were made in Italy. David said with the price of electricity last year they would almost cost that much to run for a few hours! Richard said he leaves his on the one kilowatt setting, and since his conservatory is double glazed, that also helps.

Richard had brought in a couple of other examples of small heaters / pads. These do not have a thermostat and you just put them on a timer and they are ideal for a windowsill or a few seed trays. One was from a company called Garland (Super 7 propagator - 13 Watts - available at Robert Dyas for £35) and the other was from Two Wests & Elliot that make a lot of greenhouse equipment and they make almost everything out of aluminium and this is one of their heating pads so I can put two or three propagators on top of that in the conservatory and that's very effective. (comes in 3 sizes, price varies from £45 to £63)

Richard said he also had a plug-in thermostat which he sometimes uses with his heater to make it come on when the temperature gets too high, and goes off when the temperature reduces. He uses that in the summer to run the heater/fan with the heater turned off - so basically it's a thermostatically controlled fan that comes on when the temperatures get too high. Because it's a double-glazed conservatory it doesn't have a large amount of opening windows. There are two in the ceiling and two that he can open manually but it's not enough really enough so having the fan is useful in the summer. He read somewhere that most plants won't grow if the temperature is above 25°C, so once your greenhouse gets too hot your plants are probably going to sulk or rest or just wait until it gets a little bit cooler - so a bit of cooling in the summer is just as important as heating in the winter.

He went on to mention a little bit about lighting. He was writing from the point of view of South African bulbs - a lot of them grow in the winter and so in this country when we're trying to grow them in the winter the light levels are extremely low, about 10 to 20 percent of what they would be in the wild in South Africa. At least with succulents we've got the advantage that most of them are growing during the summer so the light levels are a little bit better. Because of that but I brought a couple of examples of lighting technology partly to annoy Vinay because he used to bring in all sorts of wonderful bits of lighting equipment. This is old technology so these are the fluorescent tubes and this is an LED array made by a company called ViparSpectra which Tom had brought in - it was rated at 100W - it was initially turned off but when Richard found the control knob and turned the light up, it almost blinded everyone in the room. David had to say "Where are you Tom? I can't see a thing after looking at that". The actual wavelengths that these give out are designed to aid plant growth, and the light emits a mixture of different wavelengths - this is easy with LED lights but not so easy with conventional lamps of fluorescent ones. And you can adjust the height of where you position it and the intensity depending on whether you want things to flower or to grow vegetatively. How much does one of those cost? VivarSpectra make a number of different models but this one was around £109.

What Carl mentioned in his lighting article is that there's very little known about the wavelengths that actually cause plants to colour up. So one of the complaints we have is that the plants are never as brightly coloured as they are in the wild. And it's not clear whether it's the overall level of light. The suspicion is that it's only certain wavelengths that have that effect. And so Carl suggests that if we could only find out what those wavelengths were, we could just enhance the colour of our plants by using selective lighting at certain wavelengths rather than attempting to just light everything just for the sake of it. If you put plants outside they colour up a lot more than they do under glass - because the glass absorbs some of the sun's wavelengths.

Richard had also brought in a small portable lamp which is used for photographic purposes – it's intended for mounting on a camera tripod to light up scenes and so you've got choice of different colour

balances. He had only brought that in case nobody brought in an LED lamp or a greenhouse lamp. David asked has anyone else tried to grow stuff under lights in the winter? He said he hadn't. Cath said she did have indoor lighting when I didn't have a greenhouse and it worked quite well. Richard mentioned he has also used the lighting to grow plants in an airing cupboard. One of the members mentioned they had a USB powered lamp in their hallway which could light the area the size of one of our tables. She powered it on a timer using a 6 or 8 hour cycle. It's something that's available on Ebay.

Tom mentioned there are growers who grow certain difficult genera like pseudolithos and they grow them in artificial light where they can control lighting and heating precisely. Richard mentioned if you go online and search for grow lights you'll find a lot advertised by people whose websites are dedicated to the growth of one particular species which is not legal to grow in this country. Richard said when he got his lamp it came in a completely unmarked brown box so that the postman and all the neighbours wouldn't suspect anything.

So Carl at the end of his article on lighting makes a number of points about how expensive it can be actually to provide real serious amount of lighting for a whole greenhouse. He's basically suggesting that people wouldn't be wanting to do that anyway. But he does point out one or two things that you might want to bear in mind. If you're just wanting to get plants into flower at a particular time then it's the day length that matters and giving them just a little bit of extra light during the period when they would otherwise be dark might stimulate them to flower. But again he says it needs a lot of research. The other thing he says, and this is a very practical suggestion that' number one on his list of things to do to improve the light levels for your plants is to clean your greenhouse. So before you get an expensive lighting device, buy one of these mops to clean the glass panels. David said he uses exactly the same mop to apply CoolGlass on the outside of the greenhouse to provide some shading.

Ben was going to just talk about composts, wasn't he? So in order to fill a gap Richard had filled up some of these hummus tubs which he keeps in case they come in useful. The samples he had brought in included Growmoor JI #3 with peat, Tesco pink cat litter, horticultural grit, cornish grit, coarse grit, Seramis + bark, Hydroleca clay granules, Perlite, Vermiculite. So you can have a look at these things at the break if you want.

What Ben had proposed to talk about was what composts people are using now that most things are turning peat-free and if anyone had discovered any other aggregates or things like the pumice that some people swear by. Richard had brought in were several things like that. So there's horticultural grit and that's a particular one from an InExcess garden centre at Ringwood. And he mixed that with the John Innes and produce that sort of potting compost. Nowadays he would probably use a bit larger grit, but the other things people tend to use include Tesco pink cat litter. Well there are other sources of something similar though, aren't there? European Car Parts is a website that sells pumice-type material to soak up oil spills but the price is now £8.40 for a 5 litre bag which is higher than it used to be. Richard mentioned a Seramis and bark mixture, which some orchid growers use.

Richard said if you don't put enough grit in, if every grit particle is separate from any other, then it's not doing any good – it's just taking up space where there should be compost. If you get to 50% grit, then the grit particles are touching each other and there's spaces in between for the water to drain through and just as importantly, for air to get in, because the roots need air. Geoff mentioned a limestone type material which he mixes in for some genera – it was based on gypsum and some people add it to their Ariocarpus and Aztekium mixes because these plants grow in gypsum in Mexico. One of the grits here was Cornish grit which is made from granite so that doesn't have any lime in it. David said "that's the one that glows in the dark, isn't it?" Richard said if he was mixing up some more compost today he'd use a coarser grit than the other one but it varies anyway when you buy it so you can't really tell in advance what you'll get.

David said for my seedlings and sales plants he didn't go near John Innes because it's far too expensive but then you've probably all noticed that compost seems to have gone up by about 50% since last year. These are some seedlings he had put out a couple of weeks ago but they're just grown in a peat-based compost with a bit of added perlite. When stuff is growing in a shallow tray like this you don't need 50% grit or perlite because it dries out so quickly in the summer and seedlings like to be a bit damper all the time but that's the only reason he brought this bag in because he's been using this which I've seen for sale this brand, Evergreen. It's this Irish potting compost and it contains nothing but Irish moss peat and he can't grow stuff in peat-free compost so he's bought lots of this. It's only £6.95 a bag for 75 litres so it's cheaper than most of the others and it says on here the peat in this product has not been harvested from areas with scientific interest. He used it last year and my plants have grown fine in it. Jane asked where he got it from,

and David mentioned a local source was near his fathers, at McCarthy's Fruit And Veg Ltd on the road between Wickham and Bishop's Waltham. And they've got a multi-purpose mix which is available in smaller bags. David asked Toby are there any composts containing peat in the garden centres? Toby said not in our garden centres. Richard said the material he had got was "Growmoor" and he had only just got this and not grown any plants in it yet. But it looks OK.

Glenn asked for an explanation of why typically, cacti are round or cylindrical in shape? He mentioned that this was a question asked to him when he first joined the society. Richard mentioned that a sphere has the highest volume with the smallest surface area. Of course cacti do also have ribs and that is to allow them to contract and expand in the different seasons without splitting or bursting their skin. So, it's a compromise that has developed over many years – it's not going to do something radical, but it will just modify what it's already started with. Jane mentioned she grows a lot of epiphytic cacti - and they're not round. They do have different cultural requirements as well. Some people use orchid mixes for them, they do grow epiphytically on trees where leaf litter falls onto the branches, but it's difficult to recreate that in the home without making a mess.

Another member of the audience mentioned that if people keep reptiles or bearded dragons, the pet shops sell a limestone mix which can be added to regular compost. Was it baked clay or is it stone or grit? It's mainly made up of limestone, clay, etc. David thought it might be expensive but apparently you can buy large bags for a reasonable cost.

Richard mentioned Hydroleca. This is made from expanded baked clay and it is used for some types of plant culture including hydroponics. Richard said he use it for putting on trays, which he was growing epiphytes in, which like humidity, and also for orchids which like humid conditions. When you water the tray, this stuff gets wet and then the water evaporates over the course of the day and raises the humidity. But he imagined you could grow plants in it using hydroponic techniques.
Mike mentioned a compost made buy a company called Melcourt (https://melcourt.co.uk/products/) called SylvaGrow. It's a professional peat free compost which is made from processed wood. They also make a John Innes mix. But it seems to be pricey at £8 for a small bag. David said that's no good if you've got a couple of greenhouses full of plants.

In the second half, Cath talked about seed raising. She said she was not really very prepared or very good at seed raising, so you're going to have to bear with me. She'd say she was very enthusiastic, but not very successful. She goes for quantity and then something survives. If everything survived that she planted, she would be absolutely overrun, so at the moment it's not so bad.

She said she didn't join in on the compost discussion just because she wanted to save myself with something else to talk about. Last year she brought in a little bag of what she sows in, which is Westland John Innes Seed Compost with some quite fine grit mixed in. And she used to add quite a lot of the grit. Depending on what she was growing, she'd use less for cacti that want to stay wet, and for mesembs she'd put quite a lot in. So she was still using the same stuff, and she should have brought the bag in with her, but it's just a big bag and honestly shedidn't feel like putting it in the car. Obviously it's peat free now, and in the Westland seed compost, She thinks they have replaced the peat with coconut coir. But it's got a lot of quite long fibres in, and it holds absolutely no moisture, it seems to dry out quickly. She had brought along a little pot of conophytums that she was trying to grow in it. You can see all of the stuff hanging out, and she watered these yesterday and it's dried out in a day and it's only early May and not that hot. So she didn't know what she was going to do, She was going to try and find something else to sow in, because this is rubbish – don't use the Westland brand for your seed compost.

Jane said she didn't understand why coir has been used, because it is so dry, not only that, the cost of getting the coir from where the coconut trees grow to here is ridiculous. Cath said she gets bags of worm castings that she mixes in, and it's like a really lovely, soft, fluffy, fine, quite nutrient rich material and she's been mixing that in. She think it's helped but she still needs to find a new source of compost.

Geoff said he microwaved the compost for 2 minutes and Cath said she has never done that because she had a hypothesis about the microbiome in the soil. If you microwave the soil or pour boiling water on it, you're killing all the good bacteria. Cath said she had a pot of scorched cactus seedlings she was going to bring in to show you the perils of leaving them in a south-facing window, but they're also covered in spider mite, so she didn't want to bring them in. And she asked if anyone remembered last year when she brought that pot of all the really nice little astrophytums, it's that pot of little astrophytum seedlings. So there's a couple in there

that are not completely gone and she was hoping for the best.

What were you using to get rid of the spider mite? There is BugClear, regular, and then the ultra is the one that will kill the spider mite. And then the other debate is about the covering or not covering. She has gone for not covering, except for cacti, which she keeps in a tall tupperware and then she puts cling film over the top. That works really well, she didn't know why she had never got on with the bags.

David said he considers the bags are essential for the cacti seedlings. Cath said she'll try again. She had brought a little tray of Haworthia hybrids that are a few years old that she was quite pleased with. These have done really well. She also gets on quite well with mesembs. Do you use tap water or rainwater? She was using filtered water for seedlings because her rainwater wasn't very clean and might have pathogens. She watered her houseplants with the rainwater, but she has been using filtered water and she thought the germination seems to be better. Have you used hydrogen peroxide to try and oxygenate the soil? Yeah, she said did because, so the other problem she has is fungus gnats (sciara fly), the absolute bane of her life. She treated them but she had since noticed they seem to survive in damp areas on her windows. But the hydrogen peroxide she used to treat the fungus gnats did absolutely nothing. It fizzed very satisfyingly but didn't the plants or the gnats. Someone else mentioned Neem oil and she was hesitant to try that. She has used bacterial spores which work but have to be applied every few weeks.

David asked if she had tried something inorganic like vermiculite? She said no, but might try it. David said he had brought some fertiliser along just to remind people they should be feeding their plants at least once a month throughout the season. Everything grows better with fertiliser. A member from the audience asked whether he just used regular fertiliser? David said yes, Miracle Grow or Phostrogen were fine, as was the slow-release Gro-sure. Don't use the specialist mixes for cacti or whatever, those have reduced nitrogen and are not good value. You also don't have to use it full strength, you can use it for half strength. If your plants aren't growing, give them a watering every a few times with Miracle Grow, even only half strength, and it gives them a kick up the backside and they will grow better.

Mike mentioned the first cacti he grew from seed were from BCSS seed. And he had brought in a large selection of BCSS seeds because they had a sale at the end of last season and he bought quite a few types – if anyone wants any of these, you can help yourself. There are lots of different seeds, mainly cacti, because in the autumn he sowed many of the mesembs. And some of them have done quite well. It's quite nice to get a packet of seed with just five or ten seeds in. He used bags from Wilkos and was wondering who he would use now. It was mentioned the Range hag have started to supply some Wilko items so perhaps there might be a new source soon. He had examples of Faucaria and Fraliea grown from seed. Because it is more humid, you might get a bit of moss growing in there, but they don't seem to mind that. It's much more humid in the plastic bags so you have to keep a close watch and open the bag when the seeds germinate and reach a certain size, especially for mesembs. Once they've germinated, they need air. They hate being in closed conditions.

For cacti, David had brough in some plants he had sowed over the last year or two. He brought these in to show the dangers of sowing all of the seeds off your plants. Because fresh seed comes up like mustard and cress, and this is just a Rebutia muscular "Orange Ice" which is a version that Southfield Nurseries sell. These were two years old and ready to pot into individual pots. He had loads of seed around some clumps. he took them all out, and sprinkled them all in the tray, which he put in a bag and sealed for 12 months (to re-circulate the moisture) and they had just come out from the bag recently.

One of the beauties of sowing seeds is that the plants which come up will be a variety – either strong-spined and short-spined, or warty and not-warty, and vigorous or just runts and you can choose the best ones and not worry about the rest or sell them on. Other plants he had brought were rooted Rebutia offsets planted last year and they were the same size as two year old seedlings.

And there were also some Echinocereus, one lot of seed was better than another. These were growing in a John Innes mix with peat and grit because he had been given some John Innes which needed to be used up. He found this mix needed less watering than peat-based compost. With sales plants, which were in 5cm or 6cm pots he was watering every other day. Cath said she had got some 500ml water bottles with spouts and she placed these near the plants so she would remember to water them.

David said if you have 100s or thousands of plants that is not practical so he has a watering day when he will water everything, and not water randomly.

Toby said he just made a note on his mobile phone's calendar app and that was a good reminder for him.

Shall we move quickly onto vegetative propagation? David had brought in a few things. These are *Pachyphytum oviferum* leaves removed last year. You can see the plant that's growing. These are from the year before. So they'll grow from that to that in the second year. Did you bury the tips of the leaves? Just tried to lay them on the soil so the tip was in contact. The roots tend to come out. Well, he didn't really bury them, he only gently points the tip in the right direction. These are Echeveria cuttings taken last year. Some Echeverias offset so freely. It's so easy and quick to propagate vegetatively that no one propagates them from seed because it's so easy. Whereas these Echeveria albicans, these are from individual leaves from last year. So already they're reasonable-sized rosettes. But the only problem is, it looks like a nice lot of plants there, but you'll find one leaf has developed three plantlets at the base, so you have to separate them when you repot. That's what those two pots are. Those are both from leaves. Yeah, so that happens frequently.

Mike talked about some leaf cuttings. First was *Echeveria* cv "Topsy-Turvy", I think. I don't know the name of this one, perhaps it looks like *E. pulidonis*. It hasn't flowered yet, but pulidonis should have yellow flowers. He wasn't sure whether the book recommended leaving them on the surface and letting them make their own roots. But he thought, actually, just as David was saying, kind of touching the base of the leaf into the soil might be a better idea, actually. The other thing he has tried, and he hasn't brought in, is Haworthias. But they apparently won't work with just a leaf like that. You need to actually get a scalpel and cut off a little bit of the stem as well. Whereas with Gasteria, you can cut the leaf into sections, and each section should root.

Mike had grown te next plant from BCSS seed. It's basically one pot full of plants of *Bulbine frutescens*. He had seen Ben with a very nice version of this, with broader leaves and orange flowers. But this is the regular version with yellow flowers, you can see some forming on there. But it's also very much cutting material, because it's got all these kind of almost aerial roots growing there. So if anyone would like a bit of *Bulbine frutescens*, I'm basically going to chop this up. And anyone is welcome to come and get a bit. Shall we do that now? It's a South African pseudo succulent. It looks almost like grass, doesn't it? What kind of temperatures can it deal with? 3-4°C, so anything above freezing will be fine.

He mentioned he went to garden in Chandlers Ford and the person there said they didn't have labels on anything. They had all these fantastic plants. They said they didn't like it looking like a cemetery with all the little labels. So he's changing, basically, and he's going to use black ones from now on. If you don't want a graveyard, you need to use all the mini T labels. That's what a lot of people use. For many years, the Society used to sell small T labels which were good for small plants like mesembs. But they are no longer on sale. You can buy larger T labels but they are a lot larger than the small ones.

Moving on to insecticides and pesticides. Ben was going to talk about them. David said he didn't know what Ben was going to say. As we were talking just now about bug clear, you can buy ready-to-spray, which is a very expensive way of buying anything, or concentrate. There's a normal BugClear, and then there's BugClear Ultra, this was £12.50 about three weeks ago at InExcess. The other one is about half the price, he thought.

There's another one Provanto Ultimate Fruit and Vegetable Bug Killer (from the makers of Provado which is now banned). It's a big box with a small bottle inside it. They keep changing the ingredients. The box is about that big. But the pot inside it is tiny. Each one they develop seems to get banned, so they create new variants every few years. SB plant-invigorator is something you don't see a lot but even some of the nurseries swear by this because you can buy bigger bottles of it. It works quite well on whitefly, aphids, spider mite, mealybugs, scale and mildew. And its non-toxic. But it does take the farina off. And then there's all of these which come and go. A Doff one, This is an ASDA one. It controls aphids, whitefly, spider mite, mealybug and mildew. And when you read the ingredients, it says it contains a unique blend of plant-safe pest-controlled surfactants. So it's basically soap. And there's different ones with different soaps, soft soap works quite well. It works well on your blackfly and your runner beans, he thought. There's other ones that look the same but it says outdoor use only, and not for use on food crops.

Now to look at some plants in flower. David had brought in a couple of trays. First were some rebutias and they were open in sunshine earlier in the day. There's red and yellow and orange and white hybrids, part of the carnival range from Brian Goody. Hybrids sell better when they've got a name than if you just say hybrids. He's sold thousands of them over the years. This is a tray that was also very pretty earlier – it's *Mammillaria zeilmanniana* and there was also a lovely dark red flower form of *Rebutia krainziana*. They all need potting up. Cath

mentioned you've got a lot more flowers than I've got and David said it depends entirely on the situation of your greenhouse. If it's in full sun and there's no shade from houses or sheds or fences or anything else, then your plants will flower much earlier than if there's any shade around at all. And it can affect the flowering by four to six weeks.

David said he was at Southfield Nurseries a fortnight ago when he went to the Spalding Cactus Mart - Brian and Linda are retiring so he went there just in in case he doesn't see them again. And the place was just a riot of colour. There's tens and tens of thousands of plants there. But they'll never get rid of it all. When he can't sell them and they'll have to turn the heaters off at some time.

This is an Echinocereus which Andy's been growing for a short while – he's just bought it this evening from Ted. David had asked Andy to put it here simply because it's got a bud on it. And the unusual thing with Echinocereus buds is whereas the buds on Rebutias and Mammillarias and things develop around the base or between the tubercles or in this case on this Weingartia from the crown. On Echinocereus on nearly every species they burst through the epidermis actually rupture their way through just above the areole and then leave a horrible scar on the body afterwards. It's a unique feature in virtually the whole of the Cactaceae that the buds rip through the epidermis. So you'll often on a lot of Echinocereus mature plants you'll see what look like scars but they're just flowering scars. It's not due to bad cultivation.

Geoff brought this in. Most of you won't know this plant – David hoped you've got it labelled as *Weingartia neumanniana* and not *W. kargliana*. This is from Argentina right up near the Bolivian border, it grows in northern Argentina. It's a very rare slow growing plant and he said to Geoff earlier I bet that's 20 years old and he said he got it in the early 1980s so it's actually 40 years old. That's the largest one he's ever seen - often they're solitary It's probably on a graft. A photo showed how it looked in full flower earlier today. It's got one or two little marks on it but if that was presented nicely in a nice pot it would do well. There was a little tray of seedlings of this which Geoff had sowed last June or July. Although the way he grows them it would be 10 years before we see them for sale on the sales bench. It's a very rare plant so if you see Geoff bringing this to the sale plants, he would buy one because you'll not find that for sale through most of the UK.

Everyone knows an Aloe flower and he had brought this one in because it's just the remains of a very late flowering and sickly looking plant which hasn't had enough water but most Aloes flower in the winter which is quite nice, or just in the very early new year, so it's a nice bit of colour in the greenhouse.

Haworthias - well whenever they flower it's never very spectacular as you can see. It doesn't matter which ones you grow - the nicest ones like that or the *H. retusa* seedlings here or the weedy ones like this *H. obtusa* - they all have the same boring flowers. This is Pachyphytum oviferum – the sugar almond plant - he also brought in a couple of trays of propagations of it. It doesn't look like much because these flowers are always sort of hooded and hanging down, but if you pick them up and look inside there's a beautiful sort of pink orange flower there. You have to either pick it up or stoop down to look inside the flower. If you haven't seen that before, or if you haven't grown it, have a look, it's a really beautiful flower.

Someone else has brought in a couple of Mammillarias – M. prolifera and M. glassii which are typical small headed clustering mammillarias – they flower their heads off at this time of year. Crassula "Morgan's Beauty" - he doesn't really know when this should flower because you can see it in flower at any time of the year in collections depending on how people have grown it.

And this is a hybrid between *Crassula mesembryanthemoides* and *Crassula falcata*, a miniature species and a very large leaf species but it's a very beautiful and popular hybrid that's been around for decades. And then the beautiful flowers on this Heliosa x albiflora hybrid that we gave out in 2016 as mentioned earlier.

And Echeverias are all beginning to send up their flower stems at this time of year. He remembered Amelia who's not currently coming to our meetings used to say she picked off the flower stems on all of her Echeverias. Well some of them are very sprawly and nondescript but others, including on any of the setosa or cuspidatas are very colourful, they're bi-coloured and beautiful and they're well worth seeing. Someone mentioned Derek Tribble cuts off most of his flowers – well on things like his Adromischus you can understand it but some of the Echeverias are very nice.

The only things we haven't looked at are these sick plants. There are only 2 and they're both Ted's. No one else in the room has got any sick plants in their house? The first is *Echeveria laui*. It is one of the most difficult of the Echeverias to grow but it's also one of the most beautiful. This has got all sort of

flecking, normally it's got this very dense white farina which is a fine powdery covering, if you rub it, it never comes back so it's very difficult to handle or to repot it. If you send it to someone in the post which I've done in the past, they moan that the leaves got marked even if you wrap it with tissue paper. But this has got a very fine speckling and I think simply, I think you might have sprayed some insecticide nearby and it's taken the farina off because a lot of these will remove the white coating. Ted thought it might just be water but water doesn't normally wash off the farina.

And then Ted had brought in a Lithops. This was something rescued from Ivor's collection. It was one of the more difficult ones and I'm having a lot of trouble with it and I don't want it to die. Says on the label lost its roots in 2020, looks better in 2022. You need bigger labels if you're going to write all this stuff on there. So I think you've brought this in because it's got two normal sized heads and all the rest look dwarfed and tiny. Ivor was moaning about it in about 2018 or so I think. Oh, so he had trouble with it before you inherited it. "It's just one of them plants, Ted, I'd put it in the bin. Have you re-potted it?" Yes it's in fresh compost. I've checked it to see if it had root mealy bug and everything else. For lithops they're very susceptible to overwatering, but he said he would give that a real thorough soaking with some fertilizer. He thought it needed a kick start. A kill or cure attempt to get it going. Couldn't you split it up and reroot the healthy bits? Well, there's just two good heads. Well, you could take those off and grow them. Yeah, you could. As long as you remove them, they'll root easily at this time of the year.

David forgot to mention on the pesticides, Vinay mentioned to me on the phone in the last couple of days, he found this on the RHS website, a list of pesticides available to home gardeners. Well, this list has been on the website for many years and it's just updated now and again, I think. But every time you see it, there's less and less chemicals and less and less products available to the home gardener. It is available for download. So there is information here about organic and natural insecticides and fatty acids and SB plant invigorator. But there's no doubt at all that, of course, there is a much reduced selection of insecticides available. And the most effective ones, always, were things like Murphy's systemic dimethoate, and malathion, and the organophosphorus insecticides. And they used to kill everything and anything, which is why they were withdrawn. But you used to be able to go around, like in Asda, with a shopping trolley, pick up a bottle of Murphy's systemic, and have your loaf and baked beans next to it. It was a bit crazy that you could buy it in a supermarket. Jane asked "How many people died from it?" He ddin't know but he doubts it was very many. Most of the insecticides that are withdrawn have been withdrawn because of birds and hedgehogs and things like that. Which is why the blue slug pellets were withdrawn. After slugs and snails most fatalities were hedgehogs. So there is a reason behind lots of these things, and others because of proven health risks to humans. But it is a problem, and with a lot of them, as long as you're careful, you should be fine. We should all be wearing gloves and a mask, particularly if you're spraying anything,

Right, so anyone got any further questions? We've run out of time. I think it was Paul who asked "I do grow seeds in a bag, and I've found that if I give them a dose of fungicide that will just stop the dampening off. Does anyone know where to buy things like Cheshunt compound or Bordeaux mixture"? Cheshunt compound is no longer available - it was a mixture of copper sulphate and ammonium carbonate. Bordeaux mixture has also been banned. There is a list of all the things we used to use 20 years ago and which are no longer made or allowed to be used.

https://www.rhs.org.uk/prevention-protection/withdrawn-chemicals

Vinay Shah

Next Month's Meeting

The speaker at our next meeting on July 2nd will be **Derek Tribble**, who will be travelling down from the Harrow area to entertain us. Derek is one of the UK's most knowledgeable experts on South African succulents, and he has offered to give us a brand new talk called *Defeating Drought - A Tour of the South African Veld*.

This is basically a grand tour of the different types of habitats in South Africa, with details of the succulent plants that grow in each of these quite distinct habitats. We will see lots of rare and special plants, along with the spectacular landscapes and scenery that accompany them. Derek will also look at the lessons that we can draw from these habitats about the best way to grow the plants in cultivation.

David Neville

Forthcoming Events

Sat 8th Jun	Isle of Wight	Fraileas and all that Jazz – Stephen Woods
Sat 15th Jun	Portsmouth	Mini-Show and Judging – Bill Darbon
Tue 2nd Jul	Southampton	Defeating Drought - A Tour of the South African Veld – Derek Tribble
Sat 13th Jul	Isle of Wight	Ethanobotany. Interrelations between man and plants.
Sat 20th Jul	Portsmouth	Baja 2023 – Ian Woolnough
Tue 6th Aug	Southampton	Title to be confirmed – Hazel Taylor

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