British Cactus & Succulent Society

Southampton & District Branch Newsletter

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Editorial

Heavy rain has helped out the garden plants in recent weeks. Of course the grass has also started to grow after all that water, but I think it's not been bad overall, although we haven't seen much sun in the last couple of weeks.

In the conservatory, various cacti have produced a 2nd flush of flowers. I also had flowers on some Aloes, Gasterias and a Frithia. I did feed my plants using Miracle Gro for 2 successive waterings and they seem to have perked up, I should probably have done this earlier in the year!

Announcements

The branch dinner was held on August 21st. Although a number of regulars were unable to attend, those who came along had a good time.

The weekend after next, the branch will be staging a display at the Romsey Show on Saturday the 12th. We have organised enough people to help man our stand, but if you are at the show, do come by and say hello.

Portsmouth Branch will be holding their Autumn Show on 26th September, at Widley.

Last Month's Meeting

Cultivation Masterclass

David Neville said he had been coming to the monthly meetings since 1977 but he couldn't remember a repotting demonstration in all that time, apart from when Glenn Finn showed how to remove and pot on large plants. He mentioned that Keith and Kathy have a wonderful collection, but we ran out of time to discuss cultivation during their recent talk so this was a good chance for **Keith and Kathy Flanagan** to go through what they do - and also for everyone in the audience to join in and say what they do and ask questions.

Keith started by saying that he was no expert – but he had been growing plants for almost 35 years. In the early years he had some horrendous failures. He used to buy the 2 inch plants at places like Homebase and they were growing in peat and he thought that's all they needed, and had no knowledge of soils or composts - the Dutch have got it to a fine art when they produce plants for the nurseries.

The compost he now uses is from a place in Somerset called Green Ore – a company called FA Smith produce a loam based John Innes compost which contains some peat. They produce the soil for cricket pitches and golf courses. He used to be able to buy this locally but couldn't any more so he phoned them up and agreed to drop off some to his house - he got one pallet load of their John Innes along with some Mendip clay. They've had 2 drops delivered in 20 years, and it's worked out at about £3 a bag. So a good quality loam based compost is what you need. David Neville mentioned that when we were at Alice's for the garden party, we saw she had obtained John Innes made by Roffey Brothers and this is also really good material. Roffey are based in Bournemouth and he was planning a trip to get some.

The other thing Keith does is to never throw any gravel away – he saves it and reuses it after washing it. Also he and Kathy repot every new plant that comes it – you never know how bug-free something new is, it is, and also they need to use their compost so that they then know it will accept their watering regime. Somethings don't like being repotted but it has to be done. Also they don't buy big plants - virtually all of their collection has been grown from young plants or seeds. With new plants you also don't know how it's been grown, how much light it is used to, how often it was watered etc. Putting it into your own mix reduces the variables. Adrian asked if a small plant is growing in peat, isn't there

a chance of damaging the roots? Keith said if you don't get that root ball wet, then the plant will just sulk and the roots won't grow out. He uses tepid water to wash the plant. If something is already dry and you get the compost off then fine. But he uses a brush or just directs the hose to get the dirt off the roots. Some roots may detach sometimes but they will grow back again.

Mealy can go through a collection like anything. He thinks even when you don't see them, they are probably sheltering, and you are never totally free of them. He's watered dimethoate to try and control it, but that is no longer available for general use. With plants like Mamilopsis or other white fluffy Mammillarias, the mealy can gets in between the pups and be hard to see.

He was asked "if you bought a plant out of season, would you repot it right away". Keith's answer was that he has a close season where he doesn't get any new plants after Guy Fawkes night. In the winter months, on a wet day he goes behind the shed and washes the gravel, and gets rid of all the organic material. He also said that when he repots – he tends to use up soil, but when Kathy repots, she seems to produce soil! He has had issues once with bad compost which contained weedkiller. This happened in 1996 and he still occasionally finds plants in their collection which were impacted by this. On affected plants the roots grow outside the central ball of bad compost. After repotting the plant will recover eventually.

You can tell when a plant needs repotting - look at the eye or heart of the plant and you'll see it's looking tired. Some plants may have been in the same soil for too long and eventually the soil gets exhausted and plants will look tired. When you see a dried up collar near the neck of the plant, that indicates the plant is suffering. You may also see moss growing on the surface, and perhaps the sides of the pot are bowed as the plant tries to find more space.

The other thing they had brought along was Seramis – this is a brand of aerated clay granules. Kathy used it to re-root Haworthias. It used to be sold in garden centres but those retail packs are no longer available and it seems that it can only be purchased in bulk. However, in the last couple of years it's reappeared on Amazon and it's fairly reasonably priced with free delivery. She finds it's brilliant for rooting plants. She had brought along an Echinopsis which was growing in pure Seramis and had flowered last year and this year - so it was time to move it into some soil. Seramis is basically the same as Tesco's low dust cat litter. Kathy said she had got Tesco's cat litter once but it was the wrong type and not at all suitable. Geoff Penrose said that Derek Tribble has once told him something that hadn't been repotted for 15 years needed repotting, and his response was why? No one would have repotted it in the desert. Kathy said that basically, if your soil works for you – there's no need to change it. Some people mix in Perlite. Paul Klaaasen said he gets 30 litre bags of Seramis in Germany, and from Specks he gets fine and rough grade of pumice mixed with some mushroom compost. For cacti he mixes in John Innes No. 3. In the nurseries in Holland they repot often and have computerised watering systems so can get away with just peat. Ken Burke used to use Canterbury Spar in their mix – this is a fine grade of grit.

Keith said their mix is made up as follows : 6 parts of John Innes No. 3, 7 of gravel and 3 of the Mendip loam and he then mixes this in a wheelbarrow with a spade. This mix holds moisture fairly well and plants in plastic pot will stay quite damp after watering. Plants of some types like Ancistrocactus can't handle this so he adds more grit or Seramis to the mix – this is also the case for sensitive plants and the Lasiacantha group mammillarias. The Haworthia people also use Akadama – but that costs a lot more.

When pouring the compost, it is not cloggy and sounds like a mineral-rich open mix. Kathy removed her Echinopsis plant out of the Seramis ready for some repotting. Cliff said you don't have to worry too much about damaging the roots – he allows 24-36 hours for the plant to dry out before repotting it. Damaging the plant is a bigger worry. Kathy's approach was a little different - she stands a plant in water until the root ball is wet.

Cliff said he uses detergent every time he waters - it helps the water wet the soil more easily - he just adds a dollop of detergent into the watering can. Keith said he does his repotting at the end of February when temperatures can reach 65-70ºF on a sunny day. It might cold at that time of the year, but the sun is trapped well in their patio. February and March are the months when he does most of the work. He pays attention to the neck of the plant – that's where it is vulnerable and teases away any mould or moss from the neck of the plant. You also need to loosen root ball. Paul mentioned that in Dutch nurseries they grow plants in polystyrene trays and after 9 months they slice off the bottom – this also stimulates root growth.

Keith and Kathy use rainwater all the time but try and use a pH of 5. Their rainwater is always pH 6. The person they stay with in California, Elton

Roberts, has done articles in both US and UK journals about using acidified water. They initially poo-pooed this as a quirky idea, but after seeing the difference in Elton's plants, they decided it was worth trying. Elton uses acid (as used in swimming pools for his bulk watering) - but Keith uses Sainsbury's malt vinegar – which is 50p a bottle and cheaper than Sarsons. A bottle will probably last a season. Tap water is usually pH 7 and it checks the growth of the plant eventually and you'll see white chalky substance on the neck of the plant or the lower spines.

When using vinegar, there is no after smell and they mix in 2 teaspoons with two gallons of water. You can also use spirit vinegar but it is more expensive. They lower the pH from 6 to 5, it could be taken even lower, but care has to be taken. They don't bother testing the pH any more since it's been consistent. When plants are growing in soil which has no nutrition and which is spent, the plants look exhausted and go woody. They use ammonium sulphate at the rate of 1 spoon to 1 gallon and this allows the plant to take up nutrition from the soil.

A question from the audience asked about the use of Epsom salts? This contains magnesium and was not something they've used. Ammonium sulphate worked for them and when their friend Eddie used it on an *Echinocereus brandegeei*, the plant smothered itself in bloom. When stored, it can go hard in the box and become like a breeze block and might need some force to break it up. Some Chempak feeds do the same. Using peat in the mix will also make it more acidic to start off. Cliff said he used to grow everything in an Arthur Bowers mix straight from the bag and the plants went nuts. David said he grew up in a nursery where Levington compost was used for all the bedding plants and so he used that. There is some peat in the John Innes mixture, and the acidity helps to release minerals from the clay base.

Next was a discussion on insecticides and pesticides. You now only have a limited choice - Provado and "Bugclear". Kathy advised purchase of the larger pack which you mix yourself – it's a cheaper way of buying it. "Bugclear" mentions red spider mite on the ready mixed bottle - but the concentrate does not mention it. Provado "Ultimate Bug Killer" aerosol spray is also very good and deals with all pests. It does dissolves marker pen ink so only spray your plants! Also don't spray it too close to the plant – it comes out at low temperature and can burn the plant, so hold the can 8 inches away. The Provado concentrate deals with mealy well and £10 makes 27 litres. Be careful using it on Echeverias or other plants with bloom and even powder blue agaves since the oily mix might affect the appearance of the plants. Paul Klaassen mentioned that at ELK you can buy stuff from the East German sellers which is supposed to be strong, but I didn't catch the name of the active ingredient.

Keith went through the steps to follow when repotting. Remove the plant from the old pot, and if it has had problems with mealy, hose it off. Then check the neck and give it a good clean – salts from watering tend to build up in that areas. Sometimes the outside of the root ball can appear to be damp but the inside can be as dry as coffee powder. If the compost is solid in the pot, it does tend to say wet for longer. Work your fingers into the root ball and remove the old material, he tends to leave an inch or so at the surface intact. He hates square pot with a passion - a round plant just looks better in a round plant! Another downside with square pots is that there is less space for airflow, compared to round pots. The old gravel goes into the sack and is washed in the winter. When deciding on the size of the new pot, some plants like a lot of room for their roots, others prefer to be kept in smaller pots. Some plants like *M. grahamii* and *M. schumannii* are bad tempered and he tends to re pot into the same sized pot. They don't like a lot of wet moisture round the roots. The plant he was repotting was *Notocactus roseoluteus* and this has fantastic flowers - but the plant was really suffering. Some pots these days are so thin, that light can go though and you can get algae growing on the rootball. Clay pots are also good for some plants. Tap the pot at the end to make sure all the compost has settled. He also uses a spoon to get compost into the crevices and this can be used to apply the top dressing too. The hour had gone by very quickly and it was time for some tea and doughnuts.

After the break we restarted proceedings with the plant auction. There were around a dozen lots of plants of different types and sizes and several of them found new homes.

Now it was **Cliff Thompson's** turn to talk to use about grafting. Why do we graft? Well it can be used to propagate material that is unusual, for example plants with no chlorophyll – and we saw some coloured Astrophytums with no chlorophyll. It can be used to rescue plants – he had an Echinomastus which would just not produce roots – he grafted it and it flowered a year later and is now 5 times the size. Commercially, people use it to propagate plants and we saw the choice *Mammillaria luethyi*, with about 25 to 30 heads on a grafted offset. These are quite soft bodied and it is difficult to keep them on the grafting stock. Grafting can also be used to propagate rare plants, for

example *Eriosyce laui*. Sometimes do go wrong and an offset of the same thing which had been grafted on 25th June had failed to take and the graft had just dried up and died. *Mammillaria albiflora* and *Mammillaria herrerae* had taken and the grafts were beginning to offset.

He grafts from March to September or October, i.e. during the growing season. In the winter he would only do it as an emergency. Just in case, he keeps some grafting stock in a heated propagator over winter, and he has successfully done plants such as *Cochemia setispina* and Cochiseia in the winter.

He also showed us a graft of *Ortegocactus macdougall*i – where the graft did not have the orange marks that often spoil the body of the plant in cultivation. Perhaps the absence of marks was due to the speed of growth and maybe they would show up later. He had also grafted an Aeonium some weeks ago, although the rosette had not opened out yet, so he wasn't sure if it was growing. Another graft was *Dudleya farinosa*.

He uses Echinopsis for his grafting stock because it propagates quickly and is easy to grow. It is also easy to handle and forms lots of pups which are often already rooted. Grafts do grow at different rates on different stocks so the results can vary. He showed us examples of an Astrophytum which had split but which was still growing, along with a variegated Astrophytum. He mentioned that he gets seedlings from a seller at ELK and uses these for experimentation. We also saw a variegated Lophophora graft.

One of the secrets of a successful is how to put the rubber band onto the graft and Cliff was about to demonstrate this. Don't use too large a pot, use a square pot - and don't use too tall a stock. Also, cut the plant you want to graft first, to see the area and size of its vascular bundles. With Echinopsis as you cut down, the diameter changes so it possible to adjust where you cut the stock to get a good match. The vascular bundles of the scion (the part on top) and the stock must meet, otherwise it won't succeed. He uses standard post office rubber bands – these are durable and made of real rubber. The plastic ones just deteriorate, potentially even before the graft has taken. He also provided a tip – if you are going to cut into a spiny plant, use a piece of foam rubber to hold the plant steady. He showed us the herb knife he uses to cut the plants – it's made of stainless steel and hasn't rusted in 20 years. It is nice and thin and has a wide blade so is ideal for this task. Of course you have to be careful with delicately-spined plants. Spit is the best steriliser – someone from the audience mentioned methylated spirits and Cliff said well you can drink that first if you want!

He showed us to prepare the scion – by removing excess tissue but leaving the vascular bundle in the middle free to make good contact with the stock. He trimmed off parts of the ribs that were not needed. The plant should ideally be turgid and growing, but that is not always possible. With the stock it's easier to control and ensure it is in good condition. He proceeded to place the *Sulcorebutia rauschii* on the Echinopsis. Before applying the rubber bands, he stretched them and one did snap – you don't want that happening when you put it on the plant. Apply the band to the underside of the pot first, and then stretch it over the top. Just hold it in place for a few seconds until everything seems stable. Put on a second rubber band at 90º to the first one. You don't need to use weights or anything else. After 7-10 days, the graft should take place. After this time, he leaves the rubber bands on but does remove them if he wants to re-use them.

He keeps the graft under a shelf after grafting, and does not allow any direct sun at all - otherwise it can dry up too quickly. To make sure the stock is OK, he waters it two days before he does the graft. After the graft has taken, you will see signs of growth and the scion should become turgid. Some plants have a deep apex, so make sure you cut it in the right place when grafting. He has grafted further down the stem, but the Cerei get woody especially on the older bits. Kathy mentioned she went to a nursery where someone called Willie Fisher was propagating sulcorebutias on to large Cereus plants and apparently they will grow and propagate more quickly on a big cereus stock. Brain Lamb did some when the new Rebutias came into the country, and people remembered Rebutias and Aporocactus being grafted onto 6 foot tall Cereus plants.

David Neville mentioned Roland Percival had brought in some Pereskiopsis plants and Cliff said these were useful for certain types of graft. Sometimes when you grow from seed, you get something unusual or perhaps it is variegated and this can be grafted even when the seedling is very young. Cut the seedling, keeping 2/3rds of the body and then place it on the Pereskiopsis stock and surface tension will keep the seedling in place. You can get 95% success, and this is called float grafting. It only seems to work with Pereskiopsis – he has tried other stock such as Echinopsis and it didn't work for him – the top just dries out and then forms scabs.

A member of the audience asked can you graft succulents? Cliff said you can't do most succulents,

but where you can, you would usually graft onto the same family. Success with monocots is very difficult. Euphorbias can be done but they have their own complexities due to the sap. Paul said that Uebelmannias are also tricky, they have gum in their epidermis. Someone asked if multiple (triple / quadruple) grafts are possible, and the answer is yes, if you have a wide vascular bundle.

While continuing to answer questions, Cliff proceeded to graft *Eriosyce napina* onto Echinopsis. He knew the size of the napina's vascular bundle so he cut the Echinopsis first and trimmed it to size.
Razor blades are not stiff enough and cut throat razors are not shaped correctly. The extending snap-off knifes are good, but their blades do rust.

Geoff Penrose asked if the roots might grow out and root into the soil? Cliff initially answered that the roots do not go through the stock, but he agreed it was possible for the scion to produce roots and for these to grow into the soil. His plant of *Strombocactus disciformis* was grafted in 1985 and it had done this, but when you examine the roots, they are the wrong shape and also different in structure to what you'd normally see on Strombocactus.

Some more question came in. Do you reach a stage when you need to re-graft? It depends – with some of his grafts he will start breaking them up or take offsets off and regrow these. David asked if any of the grafted plants Cliff had brought along could turn into specimen sized plants and the answer was yes – potentially some support for the scion may be necessary, and this would be done by adding some top dressing around the stock. Cliff mentioned some plants do grow out of character on a graft. Ortegocactus grows to ½ to ¾ of an inch in habitat – it was much larger here.

Paul mentioned that grafting is a tremendous aid for conservation - if you have a really rare cactus, by grafting will keep it alive longer and it will flower more and produce more seed, and you'll reduce the cycle time to produce new plants.

David thanked Keith and Kathy and Cliff for their demonstrations.

Vinay Shah

Table Show Results

There were 14 entries in the August table show, and 4 entries for "Plants in Flower".

	Cacti – Mammillaria	**Succulents – Agave**
Open	(1) I Biddlecombe M. perbella	(1) I Biddlecombe Agave potatorum cv. Kichijokan
	(2) I Biddlecombe M. densispina	(2) S Wilson Agave leopoldii
	(3) B Beckerleg M. lenta	(3) I Biddlecombe Agave leopoldii
Intermediate	(1) I Biddlecombe M. albilanata	(1) B Beckerleg Agave potatorum
	(2) S Wilson M. dodsonii	(2) I Biddlecombe Agave victoriae reginae
	(3) I Biddlecombe M. albilanata ssp. tegelbergiana	(3) I Biddlecombe Agave victoriae reginae

Cacti/Succulent in Flower
(1) G Penrose Escobaria vivipara bisbeeana
(2) B Beckerleg Echeveria sp.
(3) S Wilson Sansevieria pinguicula

Ivor Biddlecombe

Bookworm Corner

The almighty downpours we had last week have at least saved having to water the garden and the far too many pots of hostas, conifers etc! On the down side the accompanying winds have made it obvious that I should have staked the heavy flowered white begonia and the pretty dark leaved dahlia and perhaps if I had got round to repotting the standard fuchsia in training and those eucomis when I said I would, the devils would not have kept falling over all the time. So maybe that's a job for me at the weekend.

We have quite a lot of cacti and succulents summering out in the garden. The aloes after a period of not doing a lot have started growing after the rains, in particular *Aloe thraskii* and *A. plicatilis.* In fact we have just turned several more aloes out to join them. In the cacti house the mesembryanthemums including *Faucarias* and *Conophytums* are growing well with the *Frithia* and *Lithops* flowering. So far we have just had yellow lithops but I am sure there are some white flowering ones somewhere.

The flock of sparrows is probably at its maximum in the garden at the moment, they defiantly have had a successful breeding season. The highest count so far has been 90 plus crowding round the feeder, in the hedges and flowerbeds. It is noticeable that the youngsters are moulting into their adult plumage. Many which originally looked like a load of drab females are now turning out to be males as the dark head markings and bibs are growing through. The sparrowhawk of course doesn't mind which one he catches on his frequent visits to the garden…

'ENJOYED THE LECTURE? THEN ENJOY THE BOOK!'

August

August saw a new format for a meeting with a panel of guests for '**Ask the Experts**'. The experts where Kathy and Keith Flanagan, who also spoke at our July meeting and Portsmouth member Cliff Thompson, another regular speaker at Southampton. Books covering the topics including grafting, pests and diseases include '**Cactus Culture – based on biology**' (Buxbaum F.). Another book covering topics of cultivation is '**Cactus and succulents**' (Mace T & S). This covers a variety of topics to including pests and propagation as well of setting up a greenhouse for the collection. These books can be found in library.

September

We have what promises to be an interesting talk by John Hughes entitled '**Cool Customers (Growing with Minimal Heating)**' this evening. Books that hopefully tie in with the talk include '**Dumpling & his Wife**' (Hammer S.) which covers *Conophytums* (Hammer reckons can be kept at a minimum of 5 degrees C). If you prefer to grow cacti then have a read of '**Gymnocalycium – A Collector's Guide**' (Pilbeam J.), as these plants should be happy at 5 deg C. A more general book with a good list of species that could potentially also survive out in the garden on a permeant basis is '**Growing Cactus & Succulents in the Garden**' (Bell S.A.). However, do have a look through the library bookshelf for any specific genus mentioned in tonight's presentation during the tea break!

Sue Wilson

Next Month's Meeting

The next meeting will be held on 6th October and will feature a talk by our local member Martin Sheader, about plants from Southern Peru. Martin has had numerous trips to South America and is very knowledge about alpines and other types of flora so we can expect to see a wide variety of plants.

The October Table Show will consist of the **Echinocereus Group (cacti)** and **Lithops subgroup (succulents)** classes. Please note that members can submit more than one entry in any of the classes, and that points will be earned for each placed entry. In addition there is a class for any flowering cactus or succulent plant.

The *Echinocereus* group includes *Echinocereus, Morangaya and Wilcoxia.*

The *Lithops* subgroup includes *Dinteranthus, Lapidaria and Lithops.*

From 2015, the table show classes will now use the classifications from the *Guide to Shows 10th Edition.* (contact me if you need a copy of this)

A reminder for committee members that a committee meeting is due to be held on Wednesday 30th September.

Forthcoming Events

Sat 12th Sep	Southampton	Display / Plant Sales @ Romsey Show
Sat 12th Sep	Isle of Wight	The Tribe Rhipsalidae and its hybrids (Carl Bullock)
Sat 19th Sep	Portsmouth	Conophytums (Eddy Harris)
Sat 26th Sep	Portsmouth	Portsmouth Autumn Show @ Christ Church Hall, Widley, PO7 5BU
Wed 30th Sep	Southampton	Branch Committee Meeting
Tue 6th Oct	Southampton	A Plantsman in Southern Peru (Martin Sheader)
Sat 10th Oct	Isle of Wight	Off the Beaten Track 3 (Rodney Sims)
Fri 17th Oct	Portsmouth	Around the Shows - BCSS & RHS Shows (Trevor Wray)
Tue 3rd Nov	Southampton	Zone 11 Quiz Hosted by Southampton & District Branch
Sat 14th Nov	Isle of Wight	Andrew Nightingale – title TBC
Sat 21st Nov	Portsmouth	Practical help with your plants (David Neville)

Branch website: http://www.southampton.bcss.org.uk
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