



**MANCHESTER
BRANCH
NEWSLETTER**

Autumn 2017



Plants we don't see very often nowadays

I answered an SOS from Sheffield Branch in August as their expected speaker had to cry off as he was having a heart bypass operation and would be unable to fulfil the engagement. Having been given the information that the branch had recently acquired some new members I felt that the talks I had prepared might not be right for people new to the hobby. I have hundreds of slides dating back to the mid 1970's of plants I grew in those days of amassing a collection. The branch had a regular attendance of up to 40 members at meetings at that time and we were able to arrange a coach trip every year taking in at least two nurseries on a Sunday. There were more nurseries around at that time than there are currently but sadly places like Tom Jenkin's Nursery, Mrs Coombs in the north west hills of Wales, Blackburn's Nursery, Croston Cactus, Horace Kenniwell's plants and Plant Lovers to name but a few have disappeared. These nurseries grew seedlings in profusion and there were row upon row of well grown plants in 2½ inch pots for as little as 2/6 (12½p for those too young to know £sd). In those days I was able to save £5 a month from my salary towards little pleasures and on one of these trips £20 went a long way. It was great fun looking along the rows of plants from the many genera available. One by one plants found their way into the trays we all took and after careful calculation to make sure there was still enough for the next nursery the purchases were paid for and carried back onto the coach. As the coach was full of people the trays had to be stored in the hold under the seating and on we went to the next port of call. I'm sure the driver must have thought we were slightly peculiar but by the end of the day he would have purchased a plant himself—it was infectious. Purchases were mainly cacti in the 70's as the huge influx of other succulents from the African continent had not taken off.

Digitorebutia pygmaea
Gymnocactus viereckii

Notocactus leninghausii
Parodia chrysacanthion

Echinocereus viridiflorus
Mammillaria bocasana

Parodia saint-pienna
Neoporteria nidus



Above are plants that would have been possible to purchase in almost any of the nurseries we visited.

So back to my story—as I was amassing the slides the thought went through my head that so many of the plants I used to grow are not around in collections today. In fact I think that if people really want to grow all the old favourites, and there are many as I will show soon, the only successful way will be to purchase seeds of them and grow them. For that it will be no good relying on just the Society seed list because it is too small to offer the scope. There are nurseries around the world who offer excellent lists of a profusion of genera and species. It might even be a good idea for people to join together to order seed and either grow a proportion of species or to share the seeds out amongst themselves and try to grow a few of each. Successful growing could lead to a pool for swapping or offering to new members.



Gymnocalycium monvillei, *Lobivia x Echinopsis*, *Notocactus herteri*, *Neoperteria chilensis*

Members of Sheffield branch also commented on how many plants they had seen during the evening that they had forgotten about that perhaps they ought to grow again. The problem, or maybe the joy, of the hobby is that fashions change. Plants become ‘too easy’ to grow, or maybe boring, or perhaps they all look the same and people fall out of love with them. New vogues come in and growers want ‘to move with the flow’ so they follow the new fads. All growers have been guilty of that, including me. I remember the arrival of the TCP’s, the caudiciform plants that were an anathema to some cactus only growers who disparagingly called them Turnips, Carrots and Parsnips, and to some eyes they were ugly as they had no spines and even worse no visible vegetative growth when they arrived. It was a phase that blossomed hugely among a growing band of enthusiasts. The ban on importing habitat grown plants brought that period to an abrupt close though it has revived again as some countries allow licensed growers to remove plants from the wild to cultivate rather than the material being ploughed into the earth as the spread of human habitation and agriculture marches increasingly across virgin vegetation.



Echinocereus reichenbachii, *Escobaria (Turbinicarpus) roseanus*, *Neochilenia napina*, *Leuchtenbergia principis*

Now to a test of your growing habits. I am going to put lists of plants that have been in my collection at some point in the past. Do you grow any of them. Or have you in the past? Maybe you have never heard of them. If so borrow books from the library and look them up or go onto the internet and see what you can find out about them. One major problem with plants of all sorts is that they grow. In the garden that can be a problem also as any visitor will notice if they visited my collection in June and were to come again now A quarter of my front garden has changed dramatically as overgrown vegetation was ruthlessly removed and replaced by smaller, less rampant material. In the greenhouse or conservatory and on the windowsill you have two choices. You can either grow your plants well and repot them regularly or you can 'bonsai' them. The former means space becomes eaten up while the latter gives you space but not necessarily the best looking plants. In habitat, even in the harshest conditions, the plants grow when precipitation, no matter the form of it, comes. I have said to a number of people recently, "If I had every plant I have ever grown, my 30 foot by 90 foot garden would be one massive glasshouse, totally covered by glass from top to bottom and side to side. Now I would love that possibility but I know someone who would not. What I would love to see is once popular genera come back into fashion and perhaps we could do something about it in the branch.

Mammillaria
 albilanata
 albicoma
 aureilanata
 baumii
 blossfeldiana
 bocasana
 campotricha
 carmenae
 capensis
 chionocephala
 compressa
 discolour
 elegans
 evermanniana
 fittkaii
 glassii
 hahniana
 lauii
 magnifica
 mercadensis
 microthele
 moelleriana
 mystax
 painteri
 parkinsonii
 petrophila
 rubrograndis
 schiedeana
 sempervivi
 spinosissima
 uncinata
 weingartiana
 zeilmanniana
 elongata

Rebutia
 albiflora
 fabrisii
 deminuta
 einsteinii
 minuscula
 senilis
 spinosissima
 fiebrigii
 kupperiana
 muscula
 pulvinosa
 narvaecensis
 spegazziniana
 atrovirens
 pygmaea
 brachyacantha
 haagei
 orurensis
 ritteri

Gymnocalycium
 bruchii
 denudatum
 horridispinum
 gibbosum
 leeanum
 marsoneri
 mazanense
 mostii
 nidulans
 monvillei

Echinocereus
 adustus
 engelmannii
 enneacanthus
 fendleri
 knippelianus
 nivosus
 pectinatus
 pentalophus
 pulchellus
 rigidissimus
 stramineus
 scheeri
 subinermis
 triglochidiatus
 viereckii
 viridiflorus

Lobivia hertrichiana

Notocactus
 bueneckeri
 buiningii
 claviceps
 graessneri
 hasselbergii
 herteri
 leninghausii
 magnifica
 mammulosus
 ottonis
 rechenensis
 scopa
 rutilans

Parodia
 compressa
 chrysacanthion
 comarapana
 lauii
 malyana
 mairanana
 mutabilis
 penicillata
 rauschii



platense
 quehlianum
 schickendantzii
 saglionis
 schroederianum
 spegazzinii
 vatteri
 andreae
 baldianum
 capillaense
 cardenasianum

hybopleurum
 ragonessii
 stellatum
 zegarrae
 carminanthum
 glaucum
 uruguayense
 nigriareolatum
 ritterianum
 castellanosii
 leptanthum

These are just a few of the possible plants that are mainly easy to grow, rewarding with flowers from an early age, mostly cold tolerant and from six of the more popular cactus genera at the time I am speaking about. I am acutely aware that space is a huge consideration for many people when choosing what to grow and where to house it. I have been faced with the following comment from people purchasing plants in the past, particularly when buying Rebutia plants, "I've got a red flowered one and I've got a yellow flowered one so I want a different colour of flower." I appreciate that Rebutia can look a bit the same but like finger prints they are never identical. Hopefully a true enthusiast might look a bit more deeply into what a plant can offer. Some of the names used have been challenged by the 'powers that be' but you will find most if not all on large seed sites.



Gymnocalycium mihanovichii *Gymnocalycium* *Turbincarpus* (*Gymnocactus*) *Mammillaria perezdelarosea*

Growing from seed

Now that I have suggested many cacti that are easy to grow, easy to manage through winter and will offer flowers from a young age I need to offer help, if needed, to bring you to the joy of growing from seed. Chris has been very good in offering you an insight to his methods of growing from seed which has I am sure been valuable. However we all tend to do things slightly differently and it is good to have more than one way to choose from to be successful. I am an inveterate seed grower in spite of the size of my collection. There is something magical about seeing those little green shoots appear on the surface of the soil in the pots. Dependent on the viability of the seed you will get from 100% germination down to 0%. That unfortunately is the vagary of sowing seed. It matters how old, or even how young the seed is. In many cases seed over 3 years old will have reduced viability because seed in habitat has basically one year to perform as there is usually only one rainy season to make use of the moisture and the right ambient conditions of temperature. Even so there are genera where the seed will remain viable for ten years or more. It is also important for that seed to have fallen in the right place. Too much exposure to sun will mean the tender seedlings will be fried to death. Insects are always on the look out for a tasty morsel and many seeds end up as dinner. Falling down cracks in the surrounding soil or rocks can mean an absence of light which is another essential in the conditions for growth. However some seed will fall in just the right place offering protection from sun, wind and predatory creatures but with enough exposure to the rains when they come. Out of the hundreds of seeds that were scattered at the end of the last flowering season a few will germinate. Sadly germination alone is not the key to success because the seedlings in their new born state have then to endure a long period of drought so some will succumb to lack of moisture and to hungry creatures that happen upon them. It is hardly surprising then that when we see the pictures offered us by our many visiting cactus and succulent explorers

there is an absolute dearth of seedlings clustered round the mother plant or even within close proximity. Out of the hundreds sown you will be lucky to find even one plant from that sowing. Obviously bird, beast, wind and rain will have scattered seeds further afield and we don't get to see the wider hinterland where success may have been greater. It is also the case where a habitat has been stripped bare that regeneration does occur which is nature looking after its own.

Some seed can be too young to germinate. This is particularly true of cacti that hold their seed deep within the plant body. An example of this is *Mammillaria theresae*. The seed pod does not form in the traditional manner by appearing as a colourful receptacle sticking out of the plant body. Rather it remains hidden deep down at the base of the tubercle protected by the actual plant body. It is a few years later when that area of the body has shrunk down to the base of the plant and the effect of the base being rubbed by the surrounding soil/grit/stones releases the seed for nature to carry out its job. Thankfully there are not too many plants that perform this way. Other species will produce seed of very short viability. The seed will be released as the rainy season arrives and seed of this sort may only provide the highest viability for about six months. Other plants have evolved to release their seed only when it rains. Mesembs particularly fall into this category. Rain wets the seed pod which responds by opening and some seed gets splashed out of the seed pod to try to grow. When it stops raining the pod lid closes up again till the next rainfall. There may be many such sessions before the rainy season passes on and some seed will still remain in the pod till the next period of rain.

We cannot hope to replicate nature so it is trial and error to a certain extent but we can aid the seed to be more successful because we can create a controlled atmosphere giving any seedlings created a good chance of survival. However we will be incredibly lucky if we manage to bring all that do germinate to full fruition. As in nature there will be fatalities along the way. My overall aim is to manage to produce a minimum of one plant from every packet of seed sown using the mathematical idea that if I have one new plant for less than £1 I have got a cheap plant. Most of the packets sown produce far more than that. Now to get down to my routine for seed sowing. Cleanliness is the ultimate necessity as bacterial and fungal infection are the death of so many of these delicate organisms (this is probably true in habitat as well but nobody has ever been able to check this out).

1. Mix: John Innes seed compost, fine grade perlite and Tesco Premium cat litter (this is a burnt clay type which does not deteriorate). This is mixed together in equal quantities and placed in 2" square pots. To stop the mixture falling through the drainage holes I put a small square of kitchen roll over them as it quickly becomes part of the root ball(I do this for all plants no matter the size of pot when repotting) but you can use whatever suits your needs. I fill the pot almost to the top and firm it gently. This year for the first time I sprinkled sieved grit sand over the surface of the soil using a small mesh sieve

in an attempt to reduce the possibility of algae forming on the surface of the mix. Algae grows much more quickly than the seedlings and can choke small seedlings. These pots are now ready to be soaked and I use rainwater for this procedure.

2. Sterilisation: I repeat, cleanliness is paramount. Heat is the way to do this and I have used various methods in the past and it is more thorough to do it in small units rather than trying to sterilise the whole mix before putting it into pots. I also find that microwave sterilisation the most effective as it does not affect the BEF pots I use. Many years ago when we changed our microwave I kept the old one which still worked but was no longer suitable for cooking, heating and defrosting and stored it in the garage entirely for this process of sterilisation. I have an old plastic Cadbury's chocolate box from a good many years ago into which I place 9/10 pots after they have soaked up the water. This is placed in the microwave and heated at full power for 5 minutes. The pots are then placed in a plastic tray without holes so that excess water does not drip. This is covered with a cloth to prevent air borne infection. I repeat this until all pots are treated. If you are attempting this for the first time I would advise you to try no more than twenty packs of seed; don't try to run before you can walk is my advice. I do exactly the right number of pots for the packets I have bought bearing in mind it is one packet per pot to avoid mixing up seed. I did use 2¾" pots many years ago putting 2 packets per pot with a plastic label across the middle for separation purposes. Don't try it as it is not the most successful method.

3. Seed sowing: This is never done till the soil has cooled down completely. Prepare a label with the plant name on it. Any other information you want to add is personal to each individual according to how they want to keep records. Carefully sprinkle the seed onto the surface of the soil, add the label to the pot and place inside a good resealable plastic bag (I use Johnson's Ziploc bags, quart size, 7"x77/16" which I get from Costco). It is important to have a bag that does not allow evaporation to take place through the walls of the bag as a consistent level of moisture in the soil and surrounding air is crucial so don't use cheap bags. Two 2" pots fit nicely into these bags. Seal the bag and place to one side till all seed is sown and sealed.

4. Germination: I use heated propagators with plastic covers available from Garden Centres. Whether you use preset or heat controllable units is down to personal choice. I use the former. Is heat essential? This depends on a) when you sow the seed b) where you put it to grow. Chris places his on window sills in the house so the need for extra heat is unlikely in a centrally heated house. I place mine in our conservatory/utility room so it depends on the time of the year. The ideal time to sow is March when the lid will be placed over the tray and heat is an essential for me but if you leave it till June then artificial heat is much less necessary or totally unnecessary as is the lid. The ideal is to prevent the seedlings being overheated which will kill them. A 20°C daytime temperature with a lower night time temperature is ideal but I cannot control the conditions that finely. If it is going to get hot I lift or remove the lid, shade the trays and make sure the door to the outside is open and heat is off. In March I don't have to worry about that. The bag will fill with condensation which is good as it provides protection from direct sunlight and show the soil is moist. If you want to see inside the bag to check germination flick the bag and the moisture will run down the sides of the bag and you can see if little green blobs are growing. Alternatively open the bag and reseal after checking. If you are growing succulents you will need to open the bags and remove the pots about a month after germination has occurred. Cacti can be enclosed for longer but I would recommend removal from the bags by the end of 3 months.

5. Aftercare: Once the seedlings are removed from their protective sheath of the bag care is needed to prevent scorch, drying out for too long, attack by sciara fly and fungal infection. Dealing with each in turn; scorch can be easily prevented by having shading in position so that seedlings only get direct sunlight for a short period before the sun is at its hottest, namely early morning and evening. Use of an oscillating fan to provide air movement and cooling is useful. Drying out can be assessed by daily checks. Seedlings will enjoy being misted regularly. The sand on top of the soil will change to a lighter colour when dry. If seedlings are bottom watered regularly according to the weather conditions they will thrive. If they turn red they are not happy with the hot and over bright light conditions and if they shrivel they are short of water. They have not developed their succulent ability to withstand drought at this tender age so they need water. Sciara fly are the tiny, slow moving fruit flies that are seen particularly in summer. It is the larva that is the damaging agent. The fly lays eggs below the soil surface and the hatchlings gnaw away at the root until they reach the plant body. By this time the plant is dead or nearly so. Have an insect spray handy and spray the fly on sight. The top surface of sand is not liked by the fly deterring it from laying eggs. They like a soft surface. Yellow fly papers available at Garden Centres are also a good solution when hung near seedlings. You can also buy the v-shaped papers that you can put into the pot like a plant label. Prevention is the key rather than cure which is impossible really as you don't know the larvae are in a pot till the damage is done. Fungal infection: this is the biggest problem if it occurs. This will be more likely during the baggie stage but is almost completely eradicated by the sterilisation stage. There are sprays to control fungicide. It is most likely to occur if the seedlings remain bagged for too a long time.

6. Potting on: cacti are almost all very slow growers and will generally, in my experience, not be ready for moving on to individual pots or trays until at least twelve months from sowing, more likely 24 months. Thus it will be necessary late in the first growing season and thereafter to use a weak fertiliser solution occasionally to help the plantlets to grow healthily. As succulence is not yet developed judicious watering will be needed during autumn and winter but don't let the soil be too moist. You are preserving the roots without which the seedlings will quickly perish. You are not seeking lots of growth which would be weak and likely etiolated in the short day length at this time. Some succulents do grow more rapidly and need moving on quickly but this is obvious to the eyes. The soil mix when you do judge them ready for transplanting will be your normal mixture that you use for the rest of your plants.

This may seem laborious and long winded but I can assure you it is not. Preparation time for sowing 20 packets of seed might be an afternoon or less and the actual sowing and bagging time also less than an afternoon. Daily care once it becomes necessary is but a few minutes. The enjoyment of watching them grow is immense and very soothing. You will have enormous pride watching the plants gradually increase in size and eventually mature into flowering specimens. There is no way of measuring the excitement of seeing a plant you have grown from seed reach maturity and flower for the first time.

Northwest Mesemb Show: Saturday October 14th, 10.15am to 3.45pm. Plants for sale: Talk by Dorothy Minors—The Magic of Mesembs—at home and in habitat; plenty of food, lots of fun, wonderful plants to see. Don't miss the experience!!