

# The Southern African Bulb Group

## Newsletter No. 14

Autumn 2009, published September 2009



If you have any difficulty reading this Newsletter, either on the computer screen or printed copy let me know at email: [mick.reed@blueyonder.co.uk](mailto:mick.reed@blueyonder.co.uk) or by telephone to 01293 420975.

### Autumn meeting

2009, Winchester, UK. See below for more information.

The Autumn meeting of the Group will be on Sunday 18<sup>th</sup> October 2009, at Badger Farm Community Centre, Winchester, from 10:00 a.m. to 5:00p.m.

***Directions to the meeting hall Directions by road: Leave the M3 at junction 11 and proceed towards Winchester. At the first roundabout follow the sign to Winchester. At the second roundabout take the second exit up the hill towards Badger Farm. At the third roundabout take the third exit to the superstore (not the second exit marked Badger Farm). Follow the road right round the edge of the car park until you see the doctor's surgery. Next to it is the Badger Farm Community Centre.***

- The post code is SO22 4QB for those with satellite navigation.
- MAPS:
  - o [Map of the location](#), courtesy of Google Maps (you can scroll around, change scale, etc.)
  - o [Another map](#) which is more like a road atlas, thanks to Streetmap.co.uk (look for the orange arrow pointing to the meeting place)
  - o [A similar map at a smaller scale](#) showing the access roads from the M3

**The Meeting will be at the usual hall in Winchester on  
Sunday 18th October.**

10.00a.m. Doors open

10.45 a.m. Welcome by Chairman

11.00 Paul Cumbleton Supervisor of the Alpine Department at RHS Wisley. His subject will be **'A Growing Addiction. Bulbs from The Winter Rainfall Areas'** It will be a journey through my own selection of the winter-growing bulbs, high-lighting my experiences of growing them and the extraordinary variety of their colours and forms.

12.30p.m. Lunch break.

2.00p.m Bill Squire 'Construction of troughs from various materials and methods of construction.

Please bring along plants that you particularly enjoy, which interest you; which you want to know more about, which you think might interest other people or which are just available so that we can all discuss them and learn about something new and interesting.

4.00p.m. Closing time.

The charge to members attending this meeting will be £3.00 per person.

We are looking for extra items for the agenda. So, could you bring along photos of your plants or of other people's plants or plants in habitat and say a few words about them, please, if you can, please drop a short email to David Victor ([davidxvictor@btinternet.com](mailto:davidxvictor@btinternet.com)) before-hand giving some brief details and projection requirements.

Also, if you can think of any new, relevant speakers for our main sessions, please let David Victor know.

**Meeting at Winchester on 22<sup>nd</sup> March, 2009**

**Reporter – Terry Smale**

The main presentation of the day was by Brian Mathew, who has probably been the UK's most influential student of geophytic plants over the last forty years. In the afternoon, there was a shorter presentation by David Victor on his recent trip to the Eastern Cape. Once again, there were members' contributions towards the end of the session in which Bill Squire, Audrey Cain and David Victor discussed plants that they had brought to the meeting and Jon Evans talked about some of the plants he had photographed during the last year.

**“South African Bulbs and Curtis’s Botanical Magazine” a presentation by Brian Mathew**

Brian worked for 25 years in the Kew Herbarium and then spent 9 years as editor of Curtis’s Botanical Magazine, so he is very familiar with this historic publication. Fondly known as Bot Mag, it has been published continually from 1787 and runs into 222 volumes with a hiatus around 1921 when it had to be rescued by a consortium including Elwes and Rothschild and taken into RHS management. It is now published from Kew and has taken on a new life *via* on-line publication as well as the about 600 hard copies from each issue. The format of Bot Mag has stayed more or less the same throughout its life; each issue contains a selection of interesting plants which each have an illustration derived from a watercolour painting along with a commentary on them. The early illustrations were produced from a printed line drawing which was then hand-coloured; this technique persisted until 1947 when more modern printing processes were introduced. Illustrations are normally actual-sized, which sometimes requires an imaginative approach as when a concertina-folded illustration was used for a leaf and inflorescence of *Aloe arborescens*. Brian showed photographs of many pages from Bot Mag that had been defaced with botanical graffiti. Apparently it was quite acceptable in bygone years to annotate the text in these books – a good way to be permanently barred from the Kew library these days.

Curtis started his career at Chelsea Physic Garden, but then founded his own London Botanic Garden somewhere between what is now Waterloo Station and the London Eye. This provided plant material for his publications, the first of which was *Flora Londinensis*. This catalogue of plants from the London area was not very popular and he lost money on the venture. He therefore increased the potential buyers by turning to the complete World flora and starting Bot Mag which was much more successful. The late 18<sup>th</sup> century is the time when there was considerable botanical exploration of southern Africa, in particular by Thunberg and Masson. Francis Masson was sent to South Africa by Joseph Banks and spent about 12 years in the country. He was responsible for the introduction of about a thousand plant species to Britain. Whereas Masson concentrated on introducing living plants, Carl Thunberg was more of the botanist and made herbarium sheets and prepared plant descriptions. A consequence of this activity is that Bot Mag featured a wealth of South African plants in its early volumes and these included a goodly sprinkling of bulbs. It is notable that many of the specimens for painting were grown on nurseries in West London in what is now the Kensington and Chelsea area.

Many of the plant names used in early volumes of Bot Mag are not quite the same as those used today. The first illustration of a South African bulb was *Lachenalia tricolor*, which we would now regard as *L. aloides*. This genus has featured regularly and about twenty species have been illustrated. Other bulbs featured in early volumes included *Gladiolus cardinalis*, *Oxalis versicolor* and a *Ferraria*. This last genus is so distinct that botanists didn’t know what to relate it to and it went through several incarnations before ending up as the

small genus *Ferraria* that has survived for over 200 years. Other plants featured under names that are no longer used include *Ornithogalum aureum* (*O. dubium*), *Ixia longituba* (*I. paniculata*), *Amaryllis sarniensis* (*Nerine sarniensis*) and *Maianthemum spicatum* (*Wurbea spicata*).

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Around 1800, *Agapanthus* was a monotypic genus with *A. umbellatus* as the solitary species. It was illustrated from plants grown at Hampton Court Palace, where it can still be seen today. *Cyanella capensis* was said to have edible tubers, although one suspects that this fact is not of any use apart from subsistence living; it is hardly a cash crop! *Cyanella* was regarded as related to *Polyanthes* and *Agapanthus*, affinities certainly not upheld these days. The very distinct *Moraea longiflora* appeared in Bot Mag in 1804. The corms had been collected by James Niven (of the genus *Nivenia* fame) and grown by George Hibbert MP in Clapham. No locality was quoted and it was not seen again until 1976 when it was rediscovered in the Kamiesberg. There must be plants illustrated in Bot Mag that have never been rediscovered. Brian showed the illustration of *Galtonia princeps* with a comment that nearly all of the material in cultivation under this name is actually *G. viridiflora*; the real thing is high on his shopping list.

#### **“Bulbs in the Eastern Cape” a presentation by David Victor**

In January/early February this year, David had joined an AGS tour to the Eastern Cape Province that was lead by Cameron McMaster. Cameron lived and farmed in the area for many years before moving west to Napier and specialises in bulbous flora. The tour started from Port Elizabeth and went north to the borders with the Free State and Lesotho. This is a summer rainfall area, but the rains had been poor and the weather was very hot and dry, particularly in the south. This had resulted in rather poor flowering compared to wet years and some bulbs such as crinums had not even emerged from the ground. It should be remembered that the bulbs in this area are expected to be summer-growing as a result of the rainfall pattern.

Even though there was a drought, this reporter was particularly struck by the much more verdant nature of the bulb habitats compared with the Western Cape. Many bulbs could be found growing in long grass or in wooded areas. He suspects that the soils are more nutrient rich than in the Western Cape. David is particularly interested in the Amaryllidaceae and he saw a high proportion of the local species during this tour. Early in the trip, he encountered many large bulbs of *Boophone disticha* in full leaf, this species is very widespread and some western forms are winter-growing. *Haemanthus carneus* has a restricted habitat, but Cameron was able to take the participants to a colony with lovely deep pink flowers. These were much more richly coloured than plants grown by the reporter. *Haemanthus humilis* was only seen in leaf, but was densely clothing a cliff face. *Haemanthus albiflos* occurred in a river valley, under trees, in rock crevices in deep shade; *Scadoxus puniceus* was in the same valley. Both of these species enjoy shaded positions in cultivation. *Scadoxus membranaceus* was seen among rocks in a different shady dry river valley along with *Clivia nobilis* and *C. miniata*. The dreaded

amaryllis borer caterpillar was also encountered here; a pest that we do not want to see in UK greenhouses.

Quite a few different *Cyrtanthus* species were photographed, a new one to me was a red tubular species named for the tour leader: *C. mcmasteri*. *C. epiphyticus* was seen at high elevations in damp grassland; certainly no sign of it being epiphytic as the perhaps inappropriate name would suggest. *C. huttonii* had to be viewed from a distance because it was growing on the opposite bank of a fast-flowing river in a luxuriantly-wooded valley. By contrast, *C. obliquus* was found on an open rocky slope.

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The most interesting *Nerine* was *N. huttoniae* with large brunsvigia-like umbels of dark red flowers. This is a very localised species that was only rediscovered and brought into cultivation about ten years ago. *Brunsvigia radulosa* (not to be confused with the diminutive *B. radula* from the Knersvlakte) was growing in long grass and had stunning bright red flowers. *B. grandiflora* was another meadow plant which occurred in large numbers, but individual plants were well-spaced. Your reporter is particularly interested in *Hessea* and *Strumaria* and was surprised to see *Strumaria gemmata*, with its lemon-tinted crisped petals, growing in this summer-rainfall area. His stock, from much further west, is definitely winter-growing.

David's photographs were not just of amaryllids. There were also various orchids, gladioli, dieramas, watsonias, *Eucomis comosa* and the tiny *Massonia* aff. *jasminiflora* that grows at high elevations. Another quietly appealing "alpine" species is *Wurbea elatior* with its white petals crossed by a central dark bar. This is another denizen of damp areas.

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## **Growing South African Amaryllidaceae in the northern hemisphere**

by Terry Smale

### **Introduction**

Only a small proportion of South African amaryllid species are widely grown outside of their country of origin. Many countries have some sort of local bulb industry, but general availability in the northern hemisphere is largely governed by the Dutch bulb trade, which distributes material through garden centres and the big retail bulb suppliers. Frequently encountered species are *Amaryllis belladonna* and hybrids, *Clivia* species and cultivars, *Crinum x powellii*, *Cyrtanthus elatus* in three colour forms, *Nerine bowdenii*, *N. sarniensis* hybrids and some *Scadoxus*. These are all very showy species that are easily grown in the garden or cool greenhouse. A few nurseries propagate the commoner *Haemanthus* species such as *H. albiflos* and *coccineus* plus additional *Nerine* and *Cyrtanthus* species. Other genera such as *Boophane*, *Brunsvigia*, *Gethyllis*, *Hessea* and *Strumaria* remain little known outside of specialist collections. These more unusual bulbs are sometimes available from small, highly-specialist bulb or succulent plant nurseries, but their stocks frequently come directly from South Africa. When buying such material, it is important to determine from the nurseryman whether the bulbs are recent

imports, because this will influence subsequent treatment. Re-establishment of a bulb that is six months adrift in its growing cycle, requires care as described below. There is often confusion in the minds of gardeners as to how a bulb that is moved from the southern to the northern hemisphere is likely to behave. Just remember that if it is winter-growing in Africa it will be winter-growing in the north once properly-settled and *vice versa*. The cheapest and most satisfying way of building a collection of southern African amaryllids is to grow your own from seed produced in South Africa. However, patience is definitely a virtue and it is advisable to raise some quick-maturing bulbs such as *Lachenalia*, to maintain interest while the amaryllid collection is developing.

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Obviously, there are a great many different climatic zones in the northern hemisphere and this author only has knowledge of bulb culture in Europe and North America. Generalisation is almost impossible; the potential grower has to take heed of the conditions under which the plants grow wild in South Africa and try to provide a growing environment to suit. Southern California and areas bordering the Mediterranean Sea experience mild, wet winters combined with dry summers; a very similar climate to that of the Western Cape. Graham Duncan's experience in cultivating amaryllids at Kirstenbosch is directly applicable to growers in these areas. Similarly, the summer-rainfall States in the south-eastern USA, which only experience occasional frost, have a climate that is not too dissimilar to that under which Charles Craib raises bulbs. Wherever you are cultivating South African amaryllids, it is essential to physically divide the collection into winter- and summer-growers so that appropriate treatment can be provided.

### **Garden or Greenhouse?**

The first consideration must be to decide what protection is needed for the bulbs. This might be required for two purposes: first, to enable control of watering and respect seasonal growth patterns; second, to prevent temperatures falling so low that the bulbs are damaged or killed. The larger, winter-growing amaryllids are fine open-garden plants in California and Mediterranean areas which experience little or no frost, however, heavy clay soils over limestone are frequently the norm. Geophytes such as *Crocus* are native to such soils, but if they are to grow South African bulbs they will need to be modified by incorporation of sand to improve drainage and organic material, for example composted pine-needles, that will help to lower pH. A thick mulch of the same sand plus pine-needles on top of the soil is advantageous. Summer-growing bulbs such as *Scadoxus* and *Clivia* can be grown in separate beds in the same areas; they need irrigation through the summer and do not seem particularly sensitive to the winter rains. A useful technique is to construct raised beds for the bulbs, using preservative-treated timber, stonework, or any other material that is sympathetic to the garden design. They need only be 30-50 cm high, but the properties of the soil in the beds, such as drainage and pH, are under the grower's control. However, gardeners in places with mild climates tend also to have growing-houses with clear plastic overhead covers and open sides. Here they can tend a potted collection of seedling, small and rare bulbs, that might get smothered by larger plants in the open garden, together with those species that are not happy under the prevailing rainfall conditions. These houses will

often need some form of shading during the summer, the amount depending on which species are being grown.

Very few South African amaryllids have been shown to tolerate more than a small amount of overnight frost. Where the author lives, in southern England, temperatures of  $-5^{\circ}\text{C}$  occur most winters and the top few centimetres of soil can remain frozen for several days. *Nerine bowdenii* is an excellent open garden plant under these conditions. Sheltered, south-facing sites near walls and buildings are suitable for *Crinum x powellii* and *Amaryllis belladonna*. It is surprising that the amaryllis, which can be seen naturalised in southern California (where it is known as Naked Ladies) and by roadsides in Cape Town, will thrive in British gardens. It is likely that more species could be grown outdoors in cool climates, but they have just not been tested. Particularly suitable candidates for trial would be those species from the

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Roggeveld and Drakensberg, which are subject to considerable frost in nature. Enthusiasts who garden in areas of central Europe and central USA, which experience a continental climate with severe winters, are unlikely to find any South African bulbs happy in the open garden.

It follows therefore that in areas which are subject to temperatures that regularly drop below zero during the winter, nearly all southern African amaryllids will need to be grown in a greenhouse or in a conservatory attached to a dwelling house. They do not require high humidity and therefore mix well with succulent plants. Similarly the dry atmosphere of a conservatory, that often has to be shared with human inhabitants, is to their liking. There are excellent plants of *Brunsvigia natalensis* and *Cyrtanthus falcatus* growing in soil beds in a nearby unheated greenhouse in southern England. When growing in pots under such conditions, it is essential that the pots be buried in sand or soil because although some species will tolerate freezing of the leaves, it is likely that freezing of the roots would be fatal. However, in general it is recommended that there should be a heating system that maintains a minimum temperature of at least  $3^{\circ}\text{C}$ . Greenhouses should be ventilated whenever the outside temperatures allow and it is advisable that the greenhouse be fitted with as many ventilators as possible; certainly more than are supplied with standard models. The greenhouse should ideally be sited where it will receive a maximum of winter sunshine. Many summer-growing amaryllids can be grown in containers as patio plants during the summer and returned to the greenhouse for winter protection.

### **Growing the Bulbs**

Having established suitable areas for growing amaryllids, the principles of cultivation are essentially similar to those used in South Africa. Very few species grow in alkaline soils, a notable example being *Brunsvigia radula* on the Knersvlakte limestone reefs. Therefore in general the compost used should be neutral to slightly acid and free-draining, whether in beds or pots. An example of such a compost used in England is a mixture of 2 parts of 4 mm quartzite grit, 1 part of commercial ericaceous compost and 1 part of John Innes No.2 loam-based potting compost. A higher proportion of grit can be used for those species from the sandveld and dryer areas of the Cape such as Namaqualand and the Richtersveld. In California, coarse pumice or scoria is often used in place of grit. Mature amaryllid bulbs frequently demonstrate

resentment at being repotted by not flowering that year; these tend to be the ones with large permanent root systems. Hence one needs a compost that will survive as long as possible without losing its structure and this is more likely to be achieved by having a loam content rather than just organic material such as peat or coir. Bulbs are normally potted during their dormant season, but it does not seem to be essential to do it at that time. Check individual descriptions to see if the bulb grows above ground, examples are *Boophone* species and *Cyrtanthus falcatus*, and plant accordingly. Otherwise plant newly-acquired bulbs with the nose at soil level; some species will pull themselves lower by means of contractile roots and can be replaced at the new level on subsequent repotting. Young bulbs should ideally be repotted about every two years to speed growth, but older ones are best left until the compost starts to deteriorate significantly.

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The bulbs are watered according to their origins in the winter- or summer-rainfall areas of South Africa. The winter-growers from the end of August until

the leaves yellow in April/May and the summer-growers from March through to October. Most are kept completely dry during the dormant period apart from those, such as *Clivia* and certain *Cyrtanthus*, which have evergreen foliage. Some growers of *Nerine sarniensis* hybrids suggest that occasional summer watering promotes better flowering and it might be worth experimenting with this for other summer-dormant species. A very few amaryllids from the border between the summer and winter rainfall regimes do not fit this neat pattern. A particular example is *Haemanthus humilis* which tends to be in leaf from summer through to mid-winter. Frequency of watering depends on amount of leaf growth and prevailing temperatures; the experienced gardener uses indicators such as soil appearance and slight leaf-limpness to indicate when water is needed.

Many northern hemisphere gardeners who start cultivating South African bulbs will already be experienced in growing Eurasian bulbs which respond well to heavy feeding. Nutrient levels for South African bulbs need to be much lower, but occasional feeding with a low-nitrogen liquid fertiliser is recommended, particularly in helping young bulbs to mature as quickly as possible. Feeding of the summer-growers can be heavier than of the winter-growers. In northern Europe, particularly in areas with a maritime climate, there is a lack of winter light due to short daylight hours and cloud cover. Too much fertiliser under these conditions results in etiolation, although the problem is worse with Hyacinthaceae and Iridaceae than it is with Amaryllidaceae.

Pests are not particularly troublesome and fortunately the amaryllis lily borer is at least absent from northern Europe. Aphids sometimes attack foliage and developing inflorescences and it is important that they are destroyed to avoid transfer of virus infections. Mealy bugs sometimes hide among old bulb scales. The previously-used organophosphorus insecticides are rapidly disappearing from garden centre shelves and the best treatment for these two pests is a preparation containing imidacloprid. This is available under various brand names and can be used as a solution for watering into the soil or an aerosol for

spot treatment. A particular advantage is the long duration of action. The leaves of summer-growing amaryllids are sometimes infested by red spider mite. This pest rapidly develops resistance to various pesticides but most strains are currently susceptible to sprays containing bifenthrin. Virus diseases in amaryllids can usually be recognised by a degree of pale-streaking on the leaves and is regrettably present in some commercial stocks. Such material is best destroyed to prevent spread to other plants. Fungal and bacterial rots of the bulb and roots are commonly a result of injudicious watering, perhaps in combination with unsuitable composts, and frequently fatal. Try cutting away all diseased tissue and allowing the remaining parts of the bulb to callous before replanting. Even if the growing point is destroyed, new bulbs may sometimes develop from residual scales in the way that would occur if propagation was attempted by twin-scaling or chipping. Flowers produced in the autumn in humid climates are often infected with botrytis as they fade; it is simply a matter of good hygiene to remove dead flowers.

For many species, there is little information available on flowering performance in the northern hemisphere. Amaryllids grown in Mediterranean

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climates can be expected to flower as well as they do in cultivation in South Africa. There will always be difficult species with very particular requirements, such as veld fires, to initiate flowering. Further north, winter light levels become problematic, but indicators are good. Once bulbs are mature and have settled their biorhythms if imported from the south, most flower regularly. There are very few full-sized *Brunsvigia* or *Ammocharis* in Britain, but there are some examples that flower every year. Smaller amaryllids such as many *Nerine* and *Strumaria* species are very reliable performers.

### **Crossing the Equator**

In order to expand one's amaryllid collection, it will often be necessary to purchase bulbs that have been raised in South Africa. These might be from a local importer or direct from a nursery in South Africa. The latter method could save considerable amounts of money because there are many examples of very large price mark-ups once the bulbs reach Europe or America. Summer-growing bulbs present little problem in re-establishment, since they tend to respond quickly to warmth and moisture. They would normally be sent from South Africa when dormant, typically during the period from May to August. Planted on receipt and watered, they come into growth almost immediately and can subsequently be treated as normal for those species.

Most of the winter-growing bulbs have a strict requirement for a warm, dry dormancy before they will resume growth and this has obvious implications for how they should be treated on arrival. Even if it is intended to eventually plant the bulbs in the garden, it will be better to pot them initially so that growing-conditions can be under the gardener's control. Again, they will most certainly be shipped from South Africa while dormant, during the period from October to March. If sent early in this time slot, they will not have experienced any dormancy and even though it is their growing season in the north, they are unlikely to produce any leaves. In fact there is a good chance that excessive watering could lead to rot and death. Pot the bulbs on receipt, perhaps give them just a hint of water to prevent excessive desiccation and essentially ignore them until the following August. They will sometimes produce some new roots

during this time and when watered along with the resident collection should come into growth and be back on their proper growing-cycle. It seems very unkind to leave a bulb dry for almost a year, but it is the best way of adjusting them to the reversed seasons.

Winter-growing amaryllids received from South Africa in March will have had their dormancy and be on the point of growth. In truth, there is little that one can do to stop them growing, even though it is the wrong time in the north. So pot the bulbs, water them and place them in the coolest, shadiest spot you can find. A suitable place would be the floor of a greenhouse with shading to obscure direct sunlight. It is then often possible to keep them in growth for almost a year. Once the leaves have died, keep the bulbs warm and dry until the following August, when they should be in phase with established plants. Bulbs received in early January have responded to the “keeping dry” technique; later then this, try applying a little water and observing the result. Although the bulbs should be leafing at the right time within about 18 months of receipt, it is likely that mature bulbs will take another couple of years to be fully established and start flowering once more.

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### **Raising from Seed**

Very little South African amaryllid seed is available from northern hemisphere commercial sources, choice is probably limited to clivias. Therefore, it is necessary to purchase seed from South African suppliers. As described elsewhere in the book, there are two types of seed associated with South African amaryllids. *Cyrtanthus* species have flat, black, dry seeds, which remain viable for several months, whereas the remainder produce rounded, fleshy seeds which germinate almost immediately whether or not moisture is available to them. The other basic division is once more into winter- and summer-growers. Seeds of the summer-growers would naturally germinate in spring and should ideally be sown at that time in warmth, perhaps at a temperature of around 20-25°C. Seeds of the winter-growers germinate in the wild in autumn with falling temperatures and when possible should be sown during that season at lower temperatures in the 5-20°C range. With *cyrtanthus* seeds, there is no problem in mimicking behaviour in the wild. Their period of viability is relatively short but it is safe to store fresh seed for a few months and sow it at the season appropriate to the individual species. Use a similar soil mix to that adopted for adult bulbs and cover the seeds with a few millimetres of compost. Find somewhere with the appropriate temperatures and keep moist until the seeds germinate. The pre-soaking treatment that is sometimes recommended for *cyrtanthus*, does not seem to offer any advantages.

The fleshy-seeded genera pose problems that are almost unique in the plant kingdom. Seedsmen can not store the seeds for any length of time and hence they need to be despatched from South Africa as soon as ripe. This means that the potential purchaser has to develop a relationship with the supplier and either reserve seeds in advance or have a means of rapid communication such as E-mail or fax. Seed ripens at various times through the year, although the main periods in South Africa are March-May for winter-growers; August-October for *Clivia* species, *Haemanthus albiflos* and close relatives;

and December-May for other summer-growers. Seed will often have started to germinate in the post and must be sown immediately. They should be pressed lightly into the surface of standard compost and if necessary a small hole made for insertion of the root radicle. As with importation of bulbs, the summer-growing seeds do not present too much problem. If sown during autumn or winter, they will need additional heat, but a small propagator or house window-sill will usually be sufficient to maintain 20°C. Sometimes the developing radicle does not enter the soil but pushes the seed away from it. Inspect pots occasionally and help the radicle into the compost if necessary. The seedlings can then be kept actively growing through to the following autumn. Seeds of winter-growing species will have to be sown at totally the wrong time, in the spring. The challenge then is to keep them cool and fool their metabolism into reacting as though it was winter. The aforementioned cool area on the greenhouse floor will come into use once again. The aim is to keep the seedlings in leaf until the next spring when they can be allowed to have their first warm dormancy alongside the older bulbs.

Some seeds are being produced in amateur collections in Europe and the USA. Usually two different clones of a given species are needed and the easiest way of transferring pollen is to remove dehisced anthers from one plant and rub them again the stigma on a different one. A few species such as *Nerine masonorum* and *Brunsvigia namaquana* do seem to have a degree of self-

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fertility. Seeds will obviously be available for exchange and sowing at the correct time of year, but in cooler areas a somewhat higher temperature than prevails in the greenhouse during mid-winter, will help more rapid seedling development from late autumn sowings.

Bulb enthusiasts who are used to growing the northern hemisphere amaryllids such as *Narcissus*, *Galanthus* and *Sternbergia*, will be pleasantly surprised at the speed with which the South African species germinate and the size of the bulbs at the time of first dormancy. The time then taken to reach flowering size varies considerably between species. The present author has flowered *Strumaria tenella* in 2 years, other *Strumaria* and *Nerine* species in 4 years, *Brunsvigia namaquana* in 8 years, and some of the largest species - not yet! Additional feeding, more winter warmth and free root run are all factors which could shorten time to maturity. There must be scope for adventurous nurseryman in southern California or on the shores of the Mediterranean to produce specimen-sized bulbs for export further north, as they presently do with cacti.

I would like to thank John Lavranos and Steven Hammer for information on amaryllid cultivation in the Algarve (Portugal) and California respectively.

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Further to the article in the Spring Newsletter on Clivias by Mike Jeans all the pages of the book *Clivia* by Harold Koopowitz can be seen. There are 384 pages altogether. Secondhand books are currently selling at £80 plus.

Mick Reed

**WANTED**

A friend of mine in California is writing an article for NARGS about Moraeas. He is looking for sources of seed for this genus. Could you put a note in the newsletter asking anyone who can help to contact him? His name is Bob Werra and email address [robertwerra@pacific.net](mailto:robertwerra@pacific.net)

Audrey Cain

**SABG Member Mark Fox** has an article about his Crocosmias being published in The September issue of RHS 'The Garden' magazine.....

**Seed and Bulb Exchange:** Many thanks to all the donors and participants in the Seed and Bulb Exchange. It is growing from strength to strength and I hope everyone is satisfied with it.

Mick Reed

**Southern African Bulb Group  
Financial Statement as at 11 July 2009**

	£	£
<b>Income</b>		
Membership Fees	25.00	
Catering	14.00	
Bulb Sales	55.00	
Book Commission	0.00	
Plant Sales	174.76	
Donations	22.25	
<b>Total Income</b>	291.01	291.01
<b>Expenditure</b>		
Hall Rental	125.79	
Speaker	50.00	
Postage	8.14	
Stationery	4.00	
Printing	6.19	
Seed Purchases	0.00	
<b>Total Expenditure</b>	194.12	194.12
<b>Profit/Loss</b>	96.89	96.89

**Balance Sheet as at 11 July 2009**

Opening Bank Account	777.04
Add Profit	96.89
Closing Bank Account	873.93

I hereby certify that I have duly examined the books, bank statements, vouchers etc. of the Southern African Bulb Group and confirm these represent a true and accurate record.

Signed .....  ..... Date

David Wilson MBA

***Please Note:***

***Would any members who belong to IBSA let me know so that I do not have to send them duplicate copies of their Newsletter and Bulb Chat.***

Mick Reed

