

A Radical Approach to Growing Sulcorebutias

by Andy Powell

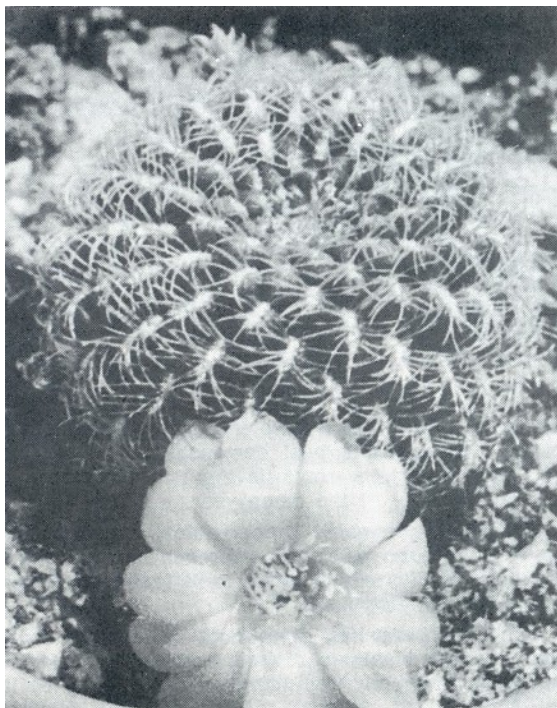
Photos by G. A. Burton

You will be hard pressed to find a genus with a more diverse range of spination and vivid flowers, or possessing greater indifference to our climate, than *Sulcorebutia* - or one that suffers from such confusion of names! In this article I use what I believe to be the correct names of the species. Hopefully this will bring a response from those who know better.

With regard to cultivation, our greenhouses risk producing (if they have not already done so) a "Sulco" to rival that old stalwart *Mammillaria bombycina*. Impressive as it may be, it is somewhat out of character with these diminutive plants we have come to enjoy so much. With this in mind, some eight years ago I made the decision to attempt to mimic the conditions of the habitat, in the hope of maintaining the natural characteristics of the plants. Despite our current meteorological state, we are unlikely ever to be able to supply Sulcos with the climate of the high Andes, but by careful monitoring and using a few simple guidelines we may be able to con the plants into thinking it is so.

There is very little readily available published information on the genus, so the amateur grower can only surmise the growing conditions experienced by individual species in the habitat. It would be interesting to make comparisons between the habitat growth and that produced by my experimentation outlined below.

SULCOREBUTIA CANDIAE



SULCOREBUTIA TUNARIENSIS

1. Containers

Throughout their lives, all my Sulcos have been in clay pots, and it is fair to point out that all the advantages and disadvantages of these containers remain. The greatest advantage is their rapid drying out; the biggest disadvantage is potential scorching of the roots in contact with the sides of the pot. I have largely managed to avoid the disadvantage by annual reporting and checking of the root system. However, those plants that have experienced scorched roots do not seem greatly affected by it.

2. Potting medium

This is a matter of personal choice, but after several experiments I have settled on a mixture of three parts of John Innes No. 2, one part of Cornish grit and one part of Perlite. The water retention of this compost balances the rapid drying out of the clay pots. Cornish grit is also used for top-dressing.

3. Watering

The plants in Group A (see accompanying lists) are watered every three weeks from the end of March to early October, while those in Groups B and C are watered every four weeks. All are kept completely dry during the winter.

4. Feeding

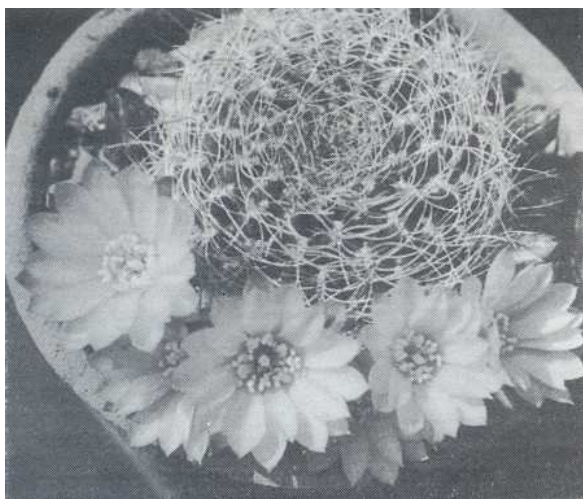
Feed is provided twice a year, in April and July, which corresponds with the period of bud formation and about a month after flowering.

5 Pests and diseases

Spraying is carried out regularly, three to four times a year, as with all my cacti.

6. Light

The plants are given maximum light at all times, though during the exceptionally sunny period in mid-1990 a light covering of "Coolglass" was applied to the greenhouse to prevent scorching. The plants



SULCOREBUTIA KRUGERII

in my collection have become accustomed to bright sunlight in early spring, and this seems to improve their flowering capacity.

7. Temperature

This is completely unregulated through the seasons and the range recorded is from -8 C to +41 C. However, the greenhouse was well ventilated during the sunniest period, to the extent of removing several panes of glass.

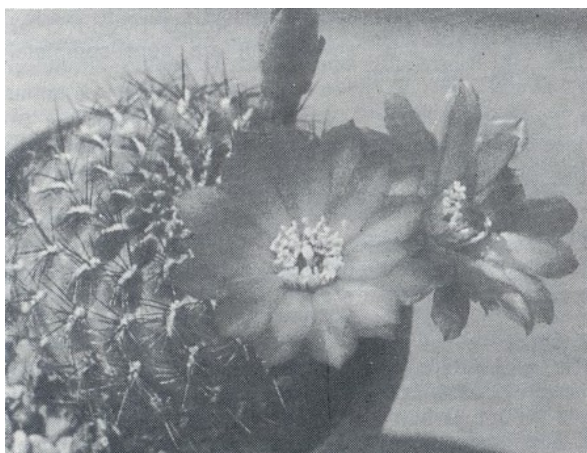
Group A plants

S. albissima, *S. candiae*, *S. cardenasiana* WR609, *S. cochabambina* f. "pojoniensis" WR671, *S. frankiana*, *S. glomeriseta*, *S. hoffmanniana* f. "La Ville", *S. jolantana* HS68, *S. krahni*, *S. mizquensis* WR194, *S. rauschii* (green form).

This group contains all those species which, for one reason or another, reacted badly to the growing conditions outlined.

S. albissima remained sullen and soft-bodied until repotted into an enriched soil containing four parts of

SULCOREBUTIA TIRAQUENSIS



John Innes No. 2. It has now become more open-spined and globose in shape. This plant is five years old and has yet to flower.

S. candiae, *S. cochabambina* f. "pojoniensis" WR671, *S. jolantana* HS68 and *S. mizquensis* WR194 have continued to grow, albeit perceptibly slowly, and appear to barely tolerate the lack of more regular watering. Indeed, during a period of three months in 1990 a twice-monthly watering of the group produced substantial improvement in their growth without affecting the general appearance of the plants.

S. cardenasiana WR609 on the other hand has reacted differently. Purchased as a cutting from a habitat plant, and the pride of my collection, it has twice lost its roots but rerooted rapidly. It seems to best tolerate a very open soil with three parts of



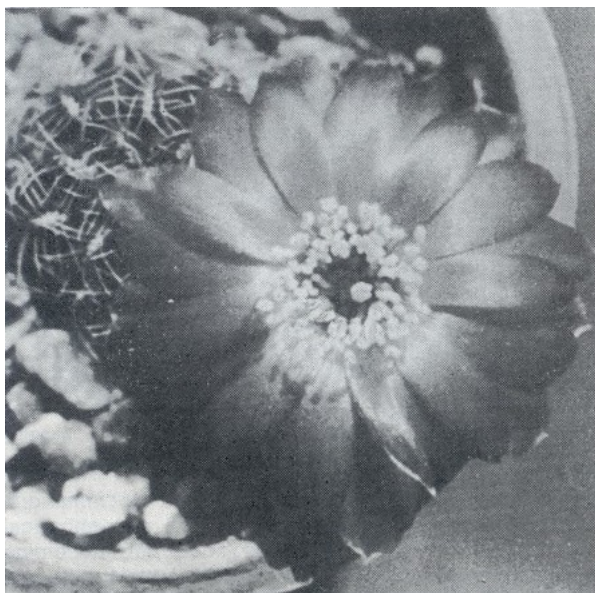
SULCOREBUTIA VERTICILLACANTHA var. AUREIFLORA

Cornish grit, and also likes plenty of room for its root system. Its vitality is best demonstrated by the fact that after losing its roots in April it rerooted and flowered in June of the same year.

S. frankiana remains happy while the sun is shining. Yet as soon as winter approaches it pales and contracts rapidly, only to return to its former glory next spring: an alarming habit!

S. glomeriseta has done nothing, despite trying numerous combinations of soil, water, etc. I feel it may be a particularly weak clone and 1991 may be its last chance.

S. hoffmanniana f. "La Ville", *S. krahni* and *S. rauschii* (green form) seem to tolerate the growing conditions but produce very few flowers, only one a year in the case of *S. krahni*. The tolerance of this latter species seems surprising as it is probably many collectors' most difficult Sulco.



SULCOREBUTIA ZAVALETAE

Group B plants

S. arenacea, *S. 'arque'* KK1212, *S. augustinii* HS152, *S. aruz*, *S. breviflora* ('haseltonii'), *S. breviflora* ('caineana' L314), *S. canigueralii*, *S. canigueralii* v. *applanata* KK217a(*), *S. crispata*, *S. camacho* KK1801, *S. cochabambina* ('clizensis'), *S. cupreata* KK1800, *S. cylindrica*, *S. cylindrica* (dark form), *S. flavissima* L338, *S. glanduliflora* L971, *S. glomerispina*, *S. hoffmanniana* ('vanbaelii'), *S. krugeri*, *S. langeri*, *S. markusii*, *S. menesesii*, *S. mentosa*, *S. muschii*, *S. oenantha* WR465, *S. oenantha* ('epizana' WR602), *S. perplexiflora* L382, *S. polymorpha* (may be *tuberculato-chrysacantha* form: the plant has matured somewhere between the two!), *S. pulchra*, *S. pulchra* HS78, *S. purpurea* HS25, *S. 'Rancho Zapata'*, *S. rauschii* v. *aureispina*, *S. ritleri* WR64, *S. santiaginiensis* HS13, *S. steinbachii* KK1260, *S. steinbachii* v. *horrida*, *S. steinbachii* v. *gracillor*, *S. swobodae* HS27, *S. tarabucoensis*, *S. tarijensis*, *S. totorensis*, *S. totorensis* v. *lepida*, *S. tiraquensis*, *S. tiraquensis* v. *bicolorispina*, *S. tiraquensis* v. *electracantha*, *S. tiraquensis* v. *spinosior*, *S. 'Torolopa - Rio Seco'*, *S. tunariensis*, *S. vasqueziana*, *S. verticillacantha*, *S. verticillacantha* ('anzaldo'), *S. verticillacantha* v. *aureiflora* L389, *S. verticillacantha* v. *albispina* L375, *S. verticillacantha* v. *brevispina* WR475, *S. verticillacantha* v. *cuprea* WR476, *S. verticillacantha* v. *minima*, *S. verticosior* ('losenickyana'), *S. vizcarrae*, *S. vizcarrae* v. *laui* L337, *S. 'zavaletae'*, *S. HS100a*.

This is by far the largest group and includes all those which have remained content within the confines imposed by the experiment. Indeed, some have reached maturity and produced flowers well in

advance of their fellows. This is particularly true of *S. augustinii* HS152, *S. hoffmanniana* ('vanbaelii'), *S. 'Rancho Zapata'*, *S. tiraquensis* v. *electracantha*, *S. verticillacantha* ('anzaldo') and *S. 'zavaletae'*, while *S. verticosior* ('losenickyana') has produced over thirty blooms in a period of only three weeks.

Group C plants

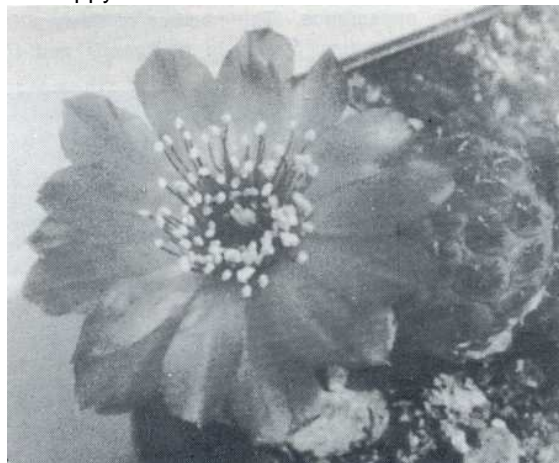
S. alba HS47, *S. 'ayapampa'* HS57, *S. 'brookii'* HS119, *S. fischeriana* HS79, *S. 'Huaycha'* HS18, *S. menesesii* v. *kamiensis* L974, *S. ressiniana* L954a, *S. totorensis*.

This group contain plants newly acquired and therefore unproven in the experiment. However early results suggest that all will be placed in Group B except *S. 'ayapampa'* HS57, which appears to prefer a richer soil and hence is likely to be placed in Group A.

S. pampagrandensis, although placed in Group B, is worthy of separate comment as it appears to be exceptionally hardy and grows readily even in the poorest of soils. Its flowering performance is also second to none. The plant in my collection is approximately five centimetres high and seven centimetres in diameter, and has regularly produced over fifty blooms a year. I am intrigued to know if these characteristics are as apparent in the habitat.

In conclusion

I have found this method of cultivation to be trouble free and undemanding. Comments received from those who have seen the plants in my collection have ranged from constructive to derisory at their diminutive size—after eight years of growth the largest plant has still to outgrow a two and a half inch pot. Yet eighty plants in full bloom on a six-foot bench makes a spectacular sight and only confirms to me that they are happy in their artificial environment.



SULCOREBUTIA RAUSCHII

Footnote

Other collectors may note certain gaps in my lists, notably *S. frankiana* v. *aureispina*, *S. unguispina*, *S. caracarensis*, *S. taratensis*, *S. inflexiseta* and *S. vizcarrae* v. *albiflora*. These, and there may be others, would be of value to complete the picture. If anyone can offer help I shall be grateful.

(*) Note of Sulco-Passion : this is a mistake in the original text. The field number of *S. canigueralii* v. *applanata* should be WK 217a in place of KK 217a.

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