

Winter Growers

by David Greenaway

Why do some of our succulent plants insist on growing in our winter, under glass, while most are summer growers? You can water the former in the summer, along with everything else, and they either rot off or they just sit there; either way – no growth. Then, when they decide to, they start growing, and at more-or-less the same time every year.

It seems that succulent plants from any of the parts of the world that have a Mediterranean climate, with its hot dry summers and mild wet winters, tend to a greater or lesser degree to be winter growers, both in habitat and here in our collections. This climate regime occurs on the western side of the continents and at latitudes between 32 and 38 degrees north and south. SW Africa, California (and part of Baja California), central Chile, parts of Australia's southern coastline, and the Med. itself, cover the obvious areas.

Many plants in these regions, grow in their cooler wetter season, rather than in the hot dry one; at those latitudes in winter the sunshine is substantially stronger than here in the UK. Even the winter growers are torpid in mid-winter here, so 'summer dormant' might be a better name, with plants going dormant during our months of May through August and with most growth occurring during autumn and spring.

The western part of South Africa has a Mediterranean climate with rainfall mainly in the winter, and it is also a succulent hotspot. A great many of our 'winter growing' succulent plants come from this region. The distribution of *Tylecodon* coincides with the winter rainfall region. *Sarcocaulon* and succulent *Pelargonium* species are also summer dormant, as is the popular *Dioscorea elephantipes*, and also *Brunsvigia*, *Massonia*, *Bulbine*, and others.

Genera such as *Crassula*, *Haworthia*, *Adromischus*, *Mesemb*s, *Euphorbia* and many others have a wide distribution, with many species growing in areas with winter rainfall and others growing in areas with other rainfall regimes. Deciduous and geophytic *Othonna* are 'winter growers' here, whilst the evergreen species are not (Rowley, 'Succulent Compositae, 1994). *Cotyledon* can be found throughout South Africa in both the winter and summer rainfall regions. *Conophytum* is restricted to winter-rainfall regions, whereas most *Lithops* grow in summer-rainfall areas. The only *Pachypodium* that I know of that is summer dormant is *P. namaquanum*. *Aloe* has a few species in the winter rainfall area, the most popular of which is *Aloe variegata*.

We do grow some plants from other regions having a Mediterranean climate. Most cacti are winter dormant, and that's how we treat them. However, some cacti from central Chile manage autumn and spring growth under glass here, so perhaps we should treat them as summer dormant and take more care with watering at that time? My *Neoporteria wagenechtii* regularly flowers in the autumn, until November, and *N. microsperma* buds up in the autumn, but waits until January and February to flower. *Dudleya* and *Fouquieria* from southern California and northern Baja California should be winter growers.

The puzzle is, why do winter growing / summer dormant plants from South Africa behave the same way here, where the seasons are reversed? There is an 'elephant in the room' - the

trigger for a plant to end summer dormancy and commence growth is a critical night length for that plant.

Steve Hammer, in his 'The New Art of Mastering Mesembs', in Section 1.1, 'Respecting the Annual Cycle', says:

Mesembs have an annual cycle which varies little from year to year. The sequence is genetically fixed; it does not go haywire when plants are brought from the southern to the northern hemisphere, though such plants are temporarily confused. Captive mesembs have no memory of, or loyalty to, the month in which they or their parents flowered. They are loyal only to day-length and should match the growing pattern of their forebears, but at half a year's distance. In a given horticultural ambience, many plants even flower on the same date year after year and go dormant at the same point.

More publicity about dormancy is required else novices – and others – will continue to suffer the disappointment of unnecessary losses. When all is said and done, though, there is no substitute for careful observation of the plants in our collections.