

NOTES TO GO WITH TRAFFIC LIGHT GUIDE FOR FROST TOLERANCE

Overall Comments

The genus names used for cacti are the official ones based on ITIS the Integrated Taxonomic Information System. However many nurseries and online sellers may use older (superseded) names for example Notocactus instead of Parodia. A list of official genus names and their synonyms is shown below in Table 1. More help on correct

1 GUIDE NOTES FOR CACTI AND SUCCULENTS MOST COLLECTORS GROW

“GO” – SAFE TO GROW IN THE OPEN

- Suggest sunny disposition from east to west.
- Under the eaves of a house is ideal as it protects from excessive rain.
- Soil medium MUST be free draining. Canberra’s natural soils are not a good medium for growing cacti and succulents in.
- Location near a brick wall is ideal as the bricks act as a heat bank on cold nights.
- Be careful against Colorbond fencing as the metal can radiate excessive heat and scorch plants (particularly in the summer).

“CAUTION” – CHECK IF NEEDS SOME PROTECTION DURING COLDER MONTHS

- A suitable sheltered spot, say under a covered pergola where plenty of light is available.
The Tucson Cactus and Succulent Society has developed a species level guide on tolerance to cold and exposure to sun.
- See https://tucsoncactus.org/pdf_files/TCSS_ABC-123-Code.pdf
Alternatively some reference books may refer to degree of frost hardiness i.e. Rolf Rawe’s “Cacti in the Southern Hemisphere” which can be found in the Society Library.

“STOP” – MOST GENERA WILL NOT COPE WITHOUT FULL PROTECTION

- Preferably locate in a covered structure such as a cloche/clear plastic covered structure, glasshouse, polycarbonate house or any combination of these as a DIY project.
Ordinary glass is very cold in the winter and conversely very hot in the summer so avoid placing “STOP” genera next to the glass, instead try and place in the middle to front sections of your bench space.
Depending on the aspect of your outdoor structure, 50% to 75% shade cloth may be required. i.e. 50% in the winter months and 75% during the summer months
Inside on a sunny window sill is OK but remember above caution about glass and limiting heat in winter for indoor cacti and succulents.

2 GUIDE NOTES FOR SPECIALIST CACTI

Overall Comments

These genera are for the serious to advanced collector. In most cases these plants will not grow outdoors, however Ariocarpus are frost hardy plants but when you have to pay many dollars to purchase one of these plants, you don't really want to see if it will grow outdoors. Also, many of the genera are very slow growers.

All these genera are recommended to be grown in a covered structure that reduces the possibility of frost and preferably the inside temperature not go below 0 degrees C on cold nights. However, all good growing practices need to be followed like adequate ventilation, free draining potting mediums, a good spraying regime and protection from the summer sun.

Most genera will require specific potting mixes, some need a grittier mix while others will not tolerate compost in the mix. Do your research first and this will alleviate a lot of growing problems.

“GREEN”

- Will tolerate low temperatures in a sunny disposition.

“ORANGE”

- Will grow in a covered structure but keep away from the perimeter cladding material. This protects from the cold in winter and plant scorch in the hotter months.

“RED”

- Very sensitive if below 0 degrees C in winter. Keep in a sunny disposition in your covered structure in centre to front of your shelving. In winter it may be a good idea to insulate the pot by placing on a 20mm polystyrene pad or place pot in 2 pots of the same size. This insulates the pot and prevents the roots of the plant from getting cold. The surface of fibre cement and metal shelving get very cold in the winter months. Refer to experienced collectors within the Society for further advice.

**TRAFFIC LIGHT FROST TOLERANCE GUIDE - SUCCULENTS
IN THE CANBERRA REGION**

V9 Nov 2020

KEY	GO Able to grow in the open (see Notes page)	CAUTION Check if needs some protection from winter (see Notes page)	STOP Most species will not cope without full protection (see Notes page)
------------	---	--	---

ADROMISCHUS 	AEONIUM 	AGAVE 	ALOE, DYCKIA 
CARPOBROTUS 	COTYLEDON 	CRASSULA 	EUPHORBIA 
ECHEVERIA 	FAUCARIA 	GASTERIA and hybrids 	HOYA CEROPOGIA 
GRAPTOVERIA and hybrids 	HAWORTHIA and hybrids 	KALANCHOE 	LITHOPS, CONOPHYTUM 
MONANTHES 	PACHYPODIUM 	PACHYPHYTUM 	PLEIOSPILUS 
SEDUM and hybrids 	SEMPERVIVUM 	SENECIO 	STAPELIADS 

© CSSACT Inc, 2020












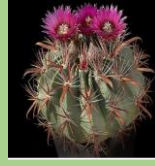

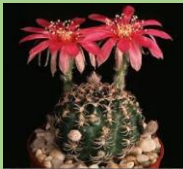










AS A QUICK CHECK ON SPECIES FROST TOLERANCE - SEE TUCSON ABC123 GUIDE

[http://www.tucsoncactus.org/pdf files/TCSS ABC-123-Code.pdf](http://www.tucsoncactus.org/pdf_files/TCSS_ABC-123-Code.pdf)

**TRAFFIC LIGHT FROST TOLERANCE GUIDE - CACTI
IN THE CANBERRA REGION**

















V9 Nov 2020

<p>KEY (see Notes page)</p>	<p>GO Able to grow in the open</p>	<p>CAUTION Check if needs some protection from winter</p>	<p>STOP Most species will not cope without full protection</p>
--	---	--	---

<p>ASTROPHYTUM*</p> 	<p>CEREI *</p> 	<p>COPIAPOA</p> 	<p>CORYPHANTHA</p> 
<p>CLEISTOCACTUS</p> 	<p>ECHINOCEREUS*</p> 	<p>ECHINOCACTUS*</p> 	<p>ECHINOPSIS*</p> 
<p>EPIPHYTIC CACTI*</p> 	<p>ERIOSYCE*</p> 	<p>ESPOSTOA*</p> 	<p>FEROCACTUS</p> 
<p>GYMNOCALCIUM</p> 	<p>LOBIVIA *</p> 	<p>LEUCHTENBERGIA</p> 	<p>MAMMILLARIA*</p> 
<p>MATUCANA*</p> 	<p>MYRTILLOCACTUS</p> 	<p>PARODIA*</p> 	<p>PILOSOCEREUS*</p> 
<p>REBUTIA*</p> 	<p>STENOCACTUS *</p> 	<p>TEPHROCACTUS</p> 	<p>THELOCACTUS *</p> 

V9 NOV 2020

SPECIALTY CACTI For experienced growers

KEY	GO Frost hardy but best to grow under cover or in a glasshouse.	CAUTION Withstands temperatures close to zero C, needs undercover protection.	STOP Frost intolerant grow in glasshouse, keep away from glass.
ARIOCARPUS 	ASTROPHYTUM Asterias 	AZTEKIUM 	BLOSSOFELDIA 
DISCOCACTUS 	EPITHELANTHA 	FRAILEA 	GEOHINTONIA 
GRAFTED CACTI 	MELOCACTUS 	OBREGONIA 	ORTEGOCACTUS 
PELECYPHORA (<i>Encephelopcarpus</i>) 	STROMBOCACTUS 	TURBINOCARPUS 	UEBELMANNIA 

SEE NOTES for growing specialty cacti.

TABLE 1 GENUS NAMES AND SYNONYMS

The following names are based on ITIS - the Integrated Taxonomic Information System <http://www.itis.gov/>

GENUS NAME	SYNONYM
ARIOCARPUS	ROSEOCACTUS NEOGOMESIA
ASTROPHYTUM	
CEREUS	
CLEISTOCACTUS	BORZICACTUS CEPHALOCLEISTOCACTUS HILDERWINTERIA
COPIAPOA	
CORYPHANTHA	
DISOCACTUS	APOROCACTUS HELIOCEREUS
ECHINOCACTUS	HOMALOCEPHALA
ECHINOCEREUS	MORANGYA WILCOXIA
ECHINOPSIS	TRICHOCEREUS LOBIVIA
EPIPHYLLIUM	PHYLLOCACTUS
ERIOSYCE	HORRIDOCACTUS ISLAYA NEOCHILINEA NEOPORTERIA PYRROCACTUS
ESPOSTOA	PSEUDOESPOSTOA THRIXANTHOCEREUS
FEROCACTUS	
FRAILEA	
GYMNOCALCIUM	
LEUCHTENBERGIA	
MAMMILLARIA	COCHEMIA KRAINZEA MAMMILOPSIS SOLISIA
MATUCANA	SUBMATUCANA
MYRTILLOCACTUS	
OROCEREUS	AREQUIPA MORAWETZIA
PARODIA	BRASILICACTUS ERIOCACTUS NOTOCACTUS
PILOSOCEREUS	PSEUDOPILOCEREUS
REBUTIA	SULCOREBUTIA WEINGARTIA
SCHLUMBERGERA	ZYGOCACTUS
STENOCACTUS	ECHINOFOSULOCACTUS
TEPHROCACTUS	
THELOCACTUS	ECHINOMASTUS GYMNOCACTUS HAMATOCACTUS