

## 24. Glass House 5.



The Botanical Collection, BCGH 5, is housed in a large 27.5m x 7.75m rectangular fibre glass house, with a water drip cooling screen at one end, and two exhaust fans with a central sliding door entry at the other end. In this glass house inside temperature and humidity can be controlled to a great extent. There are 13 large 6.5m x 1.30m benches mounted on a frame work which allows limited side to side mobility to create a passage between the benches for workers. The bench next to the water screen is used for propagation of cacti and succulents, from seeds, or cuttings. The seedlings and propagations of succulents are kept on this bench for about a year and

then moved on to the respective collections on other benches. Some difficult-to-maintain succulents are kept permanently at one end. The second bench is used for our small but quite representative collection of *Crassulaceae* Family. Most of genera of this family have a representation on this bench. Due to extremely hot summer it is very difficult to grow members of *Crassulaceae* Family outdoors and have to be preserved here. There are about 10 species of *Echeveria* and related hybrids; about the same number of *Crassulas* including a beautiful flowering hybrid, 'Crassula Boutique'. There is representation of Genus *Pachyphytum*, *Aeonium*, *Anacamprseros*, several *Kalanchoe*, succulent *Coleus* species and a few others. The next bench has a very limited collection of Caudiciform plants, *Adeniums* and *Pachypodiums* being the main plants. About a dozen other species are also here. Practically half the space on this bench is occupied by grafted cacti seedlings. Another bench is occupied by grafted Cristate or grafted grouping cacti mainly for display. There is a good collection of about forty species of *Euphorbia*. At present one of the benches here is occupied by *Epiphyllum* and related plants. A small collection of smaller growing *Agaves* is also here.

On other benches collections of Cacti have been arranged in an alphabetical order. Most of the genera of *Cactaceae* find a place here. It

will not be prudent to describe all these genera. A reference to more representative genera is as follows.



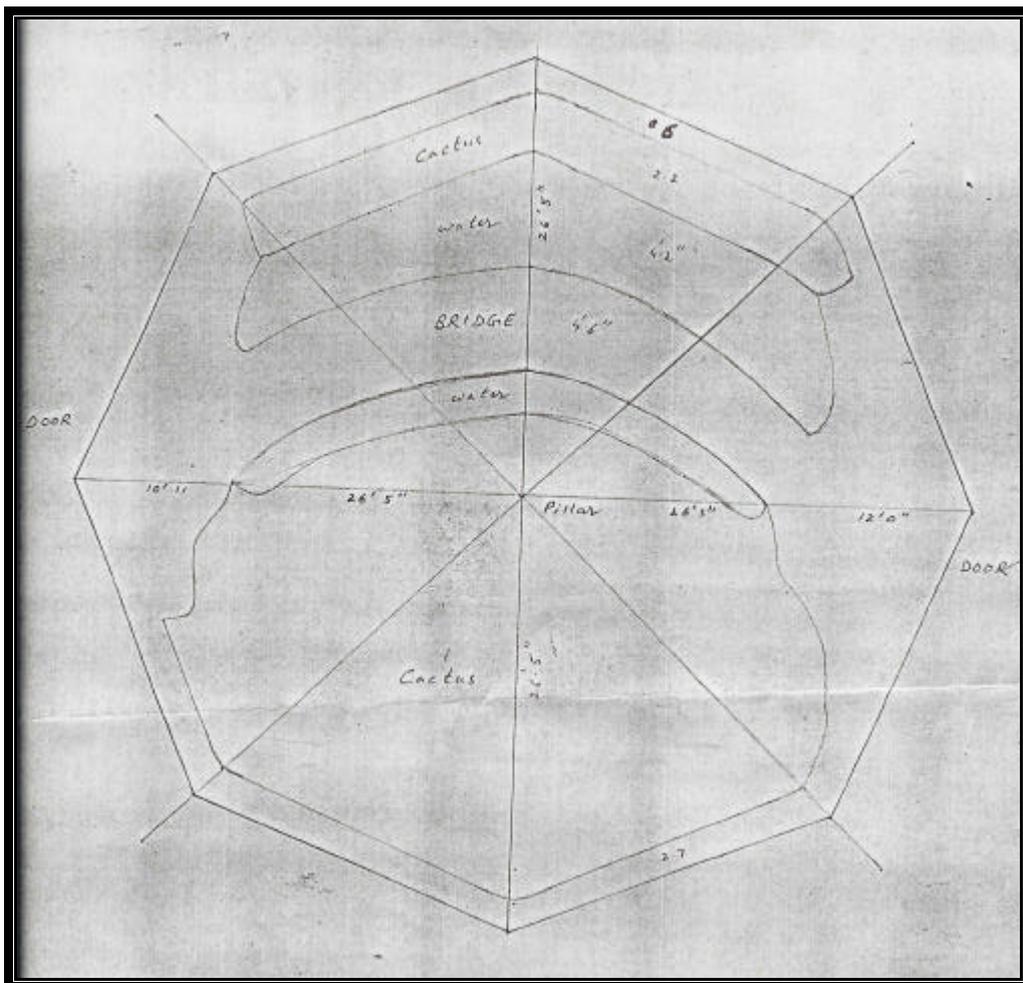
Genus *Astrophytum* collection is very comprehensive and practically all the described species and forms are represented here. Over the last several years, a cross-pollination programme has been in operation. There are several plants resembling the popular Japanese curiosity the ‘Super Kabutos’. The latter also are present here. Genus *Ariocarpus* is also very well represented. We are growing a large numbers of seedlings of this very slow growing genus. We are trying to create controlled hybrids of various species of Genus *Ariocarpus* as well. Genus *Echinocereus* has a very good

collection. More than 50% of the known species are grown here. Other good collections are of *Notocacti* and *Parodias*, *Gymnocalyciums* and *Melocacti*. There is a smaller collection of *Rebutias*, *Sulcorebutias*, *Echinopsis* and *Lobivias*. Efforts are being made to expand these limited collections. Near the entrance to this glass house, after the first two benches, is a working area, which has a small bed for grafting stock, and freshly grafted rooted plants, a work table and a small bench where plants requiring special care are kept. One bench next to this area is occupied by fresh propagations of plants requiring special conservation care.



## 24. Display Glass House 6.

This is a large octagonal glass house and was designed for display of Cacti and Succulents for public view. As you enter this glass house it leads to a narrow bridge over a water feature. The bridge overlooks a long 1.5 m wide bench on the left for potted plants. Cacti and succulents are displayed on this bench to show marked variability and beauty of these plants.



Layout of Octagonal Glass House

The display starts with plants of *Asclepiadaceae* Family mainly *Hoodias*, *Indian Carallumas* and a few other *Stapeliades*. This is followed by *Lithops* and some succulent *Euphorbias*. Practically three fourths of the bench space is occupied by various genera of Cacti. One of the most outstanding plants is a nearly forty-year-old *Astrophytum ornatum*, three fourth of a meter high. There are several other outstanding specimens of Cacti. These are followed by a small collection of *Haworthias*, and other succulents. Nearly three fourth area of this glass house is occupied by a sloping landscape feature on the right. A small water fall is also there. This landscape has tall cerei and other succulents at the back with other low growing genera of Cacti and Succulents in the middle and foreground. The foreground has several large specimens of *Notocacti warisii*, *Notocactus magnificus*, *Astrophytums*, *Neoporterias*, *Melocacti*, *Echinocerei*, and *Lopophora williamsii*. Some of these specimens came from the collection of late SHRI G. C. JAIN of Mumbai. *Frerea indica* groups hang down the side of the water body below the bridge. The six feet high stone wall of this landscape on the back has *Boliviocereus sampatiensis* and *Haageocereus aurispinus* hanging down. These plants give a beautiful flower display during summer and the flowering occurs in several flushes. There are several groups of low growing *Aloes*, *Haworthias*, *Gasterias* and a host of

other genera. Several bromeliad species also add to the attraction. There is one large *Epiphyllum* plant near the end. The supporting column of roof has several climbing genera of cacti including *Aporocactus flagelliformis* and *Hylocereus grandiflorus*. Two water coolers and exhaust fans have been provided, but the architectural design of the glass house makes them completely ineffective. The large water body under the bridge is extremely helpful in controlling the inside temperature, and humidity.



Within Display Glass House

This glass house was planned to take tourist groups on a guided tour by a guide. Unfortunately there is no provision of a guide on the staff.

However, whenever a large group visits the garden, one of the staff members takes them around this glass house.

Recently three additional small display glasshouses have come into being in the Garden. Two of these are situated very close to the octagonal glass house. One is stocked with the *Mesembryanthemaceae* or *Aizoaceae* Family, esp. *Lithops*, and the second is under development. The third glasshouse---it used to be in my residence in Sector 16, Chandigarh, till very recently---is located near Glass House.



*This small glasshouse was previously in Dr Sarkaria's residence.*