San Gabriel Valley Cactus and Succulent Society

Succulent of the Month September 2003 – ***Crests and Monstrose***

Crested and Monstrose plants are mutants. Something has gone wrong with the cellular structure of the leaf or stem growth tip (apical meristem) of the plant. In normal plants the growth tips are points, and the biochemistry of the plant forces one tip to be dominant or at least locally dominant. In crests genetic mutation removes this dominance, and instead of a single growth tip, the area of active cell growth degenerates into a line. In monstrose growth, the dominance of all or at least many potential growth points is equal, and many new bodies try to form simultaneously.

***Euphorbia lactea* "Grey Ghost" Crest entered in the 2001 Intercity Show by Lem and Pat Higgs**

Cresting and monstrose growth are two of the three most common mutations, the other being variegation. Two or even all three forms are sometimes combined in a single plant. For this month, any combination of cresting or monstrosity either alone, or together or combined with variegated growth is acceptable. Grafted plants are also welcome.

Cresting is not unique to succulent plants. Crests are found in many genera of non-succulent plants, including conifers and many common garden plants.

***Euphorbia* "Zig Zag" entered in the 2001 Intercity Show by Duke and Kaz Benadom**

Culture of crests and Monstrose Plants

Crests are grown exactly as normal plants of the same species. Some crests have weak roots, and only grow well as grafts. However, others are robust growers, and do perfectly well on their own. Careful observation of the health of the plant, and comparison to healthy non-crested plants of the same species will quickly show

whether grafting is necessary. Crests tend to be more sensitive to poor growing conditions, getting sunburn quicker, and getting unsightly brown spots more easily than normal plants of the same species. .

For the same reason, they are more attractive to spider mites and mealy bugs than normal plants, and a careful eye must be kept on them to keep good growth.

***Pachyphytum* sp. Crest**

Propagation of crested and Monstrose plants

Crests and Monstrose plants flower and produce seed, just as other plants do, but less often. Good strong growth is probably the best way to produce a flowering crest. Crests and Monstrosity are not generally transmitted by seed; however, seed from a mutant plant is much more likely to be a genetic mutant than that from a normal plant. The genetic mutation is more likely to be the same as the parent, but any other mutation is also possible.

***Luckhoffia buekmannii* Crest**

The most common method of propagation of crested plants is vegetative. Cuttings of crests are often grafted to speed growth and to preserve special growth forms. Cuttings of varieties that are on their own roots will generally root easily, as long as the cuts are taken during the growing season. After a few days drying, the cut sections are simply stuck into slightly moist potting soil. After a few weeks, there will be sufficient rooting to resume normal watering.

Tom Glavich August 2003