GROWING ADENIUMS COMMERCIALLY: SOME TIPS

Adeniums are a relatively unknown pot crop for most growers. Below are some tips to grow this crop successfully as well as some information about Adeniums as a pot plant.

ADENIUM BASICS:

- 1. Adeniums come from warm areas with seasonally dry conditions. In my opinion, once such plants gets seriously stressed, they tend to "switch" to survival mode and subsequent growth and flowering is often retarded for a long time- consistent, continuous growth is the key to a great Adenium pot plant.
- 2. Adeniums have a lot of advantages as pot plants- very attractive, bonsai-type plant form, lots of very flashy flowers in a range of colors & patterns, long blooming period (6 weeks or more is possible with new hybrids), long life (basically an Adenium can outlive its owner), great perceived value etc.
- 3. Breeding around the world has given quite a good range of color and flower patterns. We are working on getting hybrids with better leaf size & color, compact growth, high bud count per inflorescence and repeat blooming characteristics and already have a lot of progress on all these fronts. We also have a program to breed improved rootstock.
- 4. New developments include virus free plants that bloom and perform better and double flowered Adeniums- these, carefully selected for good flower form, have a greater impact and the flowers last longer than single Adeniums.
- 5. Adeniums are very close to Mandevilla botanically and in growing characteristics- they are more tender and need warmer conditions though. On the plus side, you have much better flower color range, lots of doubles etc. In terms of growing, Adeniums are very similar to Bougainvillea in almost all their needs.

TEMPERATURE & LIGHT REQUIREMENTS:

- 6. Adenium hybrids need warm to hot growing conditions (ideally 25 Deg C or 77 Deg F days or higher) and somewhat cooler nights (especially to bloom uniformly). They also need plenty of light-acclimatized plants can take full sun in most climates but up to 30% shade is OK for blooming. They also like moderately high humidity levels but can take dry conditions very well. Plants under very low humidity are susceptible to spider mites
- 7. In winter maintain minimum night temperatures of at least 10 Deg C (50 Deg F) and warm days prevent dormancy. If plants begin to do dormant (sudden yellowing of leaves) a spray of Magnesium nitrate often helps, as does raising the temperatures. The absolute minimum that Adeniums will tolerate safely is 4 Deg C (40 Deg F). and the plant must be dry to take this low temperature. Dormant plants do not need light they can be treated like summer bulbs.

WATERING:

8. Watering must be ample under good, warm growing conditions. Under cooler conditions it is important to allow the plants to be on the dry side. If plants go dormant in winter and are stored cool, <u>water must be stopped completely</u> till growth resumes. Almost the only way to kill an Adenium is to water dormant plants under cool conditions.

FEED:

- 9. We use a constant feed with high K, medium N and low P. We constant feed at about 125-150 ppm N, most of it in Nitrate form. K levels should be 250 ppm and P at 20-25 ppm. The full range of micronutrients is very important with ample B, Zn & Cu in the media and liquid feed.
- 10. Basic feed E.C. is maintained around 1.5 and we try and maintain pH at 5.5 to 6.0- a wide range of pH is acceptable though.
- 11. The secret is constant but moderate feed preliminary experience with controlled release fertilisers is promising but growth is too vegetative. We are unable to get CRFs with high K and moderate N in India but they hold a lot of potential for Adeniums.

GROWING MEDIA:

- 12. Many growing media work well with Adeniums. Try and get an open, airy yet moisture retentive media. Adeniums are long term plants and so the media must be able to retain its physical characteristics for at least 2 years.
- 13. We, as well as growers in Holland have had the excellent results with coconut coir chips- use a small size (5mm-10mm) if available, alone or with 20-30% white, chunky peat. The main thing is to prevent fines from clogging the media. In most circumstances, some (15-25%) Styrofoam or coarse perlite/pumice etc. should be added to help keep it even more open and reduce moisture holding. Make sure the coir chips are reasonably low EC- aim for 0.5- <u>squeeze a chip and test that water</u>. If it's too high (we have seen 7 to 8) you need to soak the chips overnight. Coir needs added Gypsum & single Superphosphate instead of lime along with a micronutrient package.
- 14. When potting or re-potting an Adenium, make sure you plant it a bit higher than the earlier levelyou can see the media line below which the caudex skin is white- after potting, a ring of this white skin should be visible above the new media.

PROBLEMS:

15. Adeniums have relatively few problems. Pests include mealy bugs, mites, white-fly and caterpillars. Diseases are mostly of a fungal nature with various root rots common if the media is not well aerated. Watering under cool or cold conditions is the most common cause of plant death. If seed pods form, remove them as they weaken the plant significantly.

FLOWERING:

- 16. Adeniums will bloom as long as they have good light and temperatures are moderate at both endsthey will not bloom if too cold and most wont bloom if it's too hot- for Adeniums, 'too hot' is more than 38 Deg C (100 Deg F).
- 17. Adeniums can be forced into bloom by pruning back the plants (similar to Bougainvillea). Plants will bloom in approximately 3 months after the pruning (with the exact time depending on cultivar and the average temperatures). Having a good day/night differential and cool nights (below 20 Deg C or 68 Deg F) at this time greatly helps to get uniform bloom. Nights, at this time, can go down to 15 Deg (60 Deg F)C without any problems.

SHIPPING:

18. All the Adeniums we supply are grafted onto seedling rootstock. Adeniums are tough plants and can be shipped bare root with few issues. The plants may often come to you cut back to hard growth- it will sprout well once potted. <u>Be very careful with watering</u> till you see new root and shoot growth.

19. I feel mature Adeniums, grown hard, can be shipped bare-rooted by reefer over 3 weeks but this method needs to be tested. We have shipped <u>potted</u>, cut-back-to hard-growth Adeniums by reefer.

SHIPPING FINISHED PLANTS:

20. Once in bloom, Adeniums can be boxed and shipped over 3-4 days without any ethylene damage. It is best to ship with flowers just beginning to open- any open flowers, being heavy in front, tend to break off due to the shaking. Some growers actually remove all open flowers before shipping- the buds will open up in a few days.