

ADORABLE ADENIUMS



DR. ANANT RAMAN

Dr. Anant Raman

ADORABLE ADENIUMS



Dr. Anant Raman

with technical support from

Mr. Jalandar Reddy

ADORABLE ADENIUMS



CC BY SA Copyright © 2015 Dr. Anant Raman

Text and photos are my own work except where attributed to specific individuals or organizations who have shared the pictures on Creative Commons free documentation licensed to share. Some pictures have been generously shared on free CC BY SA open license by Mr. Jalandar Reddy of Adeniums India.

The author hereby allows free usage of all information and pictures of his own in this book by same open source CC BY SA license for the purpose of information exchange among Adenium enthusiasts, plant lovers and general public, towards a better understanding of this magnificent plant .

ISBN:
ISBN-13:

DEDICATION

To God, who created this masterpiece called Adenium

To all Adenium lovers all over the world

To the Adenium experts who have developed new methods and cultivars through untiring efforts and painstaking research into the world of Adeniums

To the Adenium growers and nurseries who have popularized this amazing plant which is increasingly getting a pride of place in home gardens and public spaces, thanks to their work.

Adorable Adeniums

Welcome to the world of Adeniums, also known as Desert Rose.

In the world of laughing flowers Adeniums occupy a special place and Adenium lovers seem to consider it as a princess among flowering plants.

New forms, patterns and colors are introduced almost every day by hybrid growers and enthusiast in different parts of the world.

The objective of this compilation is to give a glimpse into the beauty and versatility of Adeniums and let people experience it in all its glory, on their own.

Once you experience the beauty of this plant you are most likely to join the millions of people who share a love and passion that extends across the continents spread over a hundred countries that enjoy good sunlight and warm climate.

The day that Adeniums are spotted in almost every other household is not far off , thanks to the enthusiastic propagation of this plant by talented growers in India, Indonesia, Thailand, Taiwan, Malaysia, Africa, South America and United States who account for more than 90% of the new varieties introduced to plant lovers every year.

CONTENTS

Acknowledgments	i
Introduction	1
Chapter 1: Adenium Obesum	6
Chapter 2: Adenium varieties	19
Chapter 3: Hybrids and cultivars	25
Chapter4 : Pests and diseases	37
Chapter5 : Plant care	45
Chapter6: Grafting	55
Chapter7: Sharing	70
Chapter8: Gallery	71
References	90

ADORABLE ADENIUMS



ACKNOWLEDGMENTS

This book would not have been possible without the enthusiastic support from Mr. Jalandar Reddy of Adeniums India who provided a rich source of insight into the cultivation and propagation of magnificent Adeniums.

Ms. Arumbu Subramanian gave valuable suggestions to present the contents in a user friendly format and make it appealing to common people as well as Adenium lovers.



INTRODUCTION

Adeniums also called Desert Rose are truly remarkable plants that keep flowering for most part of the year and need very little maintenance.

All they need are just a lot of sunlight and a little watering, about once in 3 days.

By virtue of their form with a fat caudex at the base and bonsai like structure that supports profusion of blooms they become instant favorites in any garden.

They are traditionally grown in pots but they can do very well if planted on the soil, if it is porous enough and will not result in stagnation of water.

With so many growers offering the plant at competitive prices it is now easily affordable to a home gardener to acquire a few plants and keep adding more after a while.



ADORABLE ADENIUMS





ADORABLE ADENIUMS



1 ADENIUM OBESUM

Among Adenium varieties, the Obesum is the most common and popular, as it lends itself well to grafting, thanks to its strong and attractive caudex, easy rooting from seedlings and reasonably fast growth.

One can enjoy the beauty of these plants by raising them from seeds.

The seeds sown in seedling trays will germinate



ADORABLE ADENIUMS

in 8 to 10 days and will become lovely chubby babies within two months.

They need daily watering at this stage as the plant tries to form the caudex right from the first week.

In about two months they can be transplanted to individual pots of about 4 inch or 6 inch dia size, filled



Baby Adenium Obesums, raised in seed trays filled with a mix of vermicompost and sand. These are about 2 months old, watered every day.

with a mix of river sand and vermicompost in equal proportion.

Other media like perlite and coco peat can also be used based on availability in different locations.

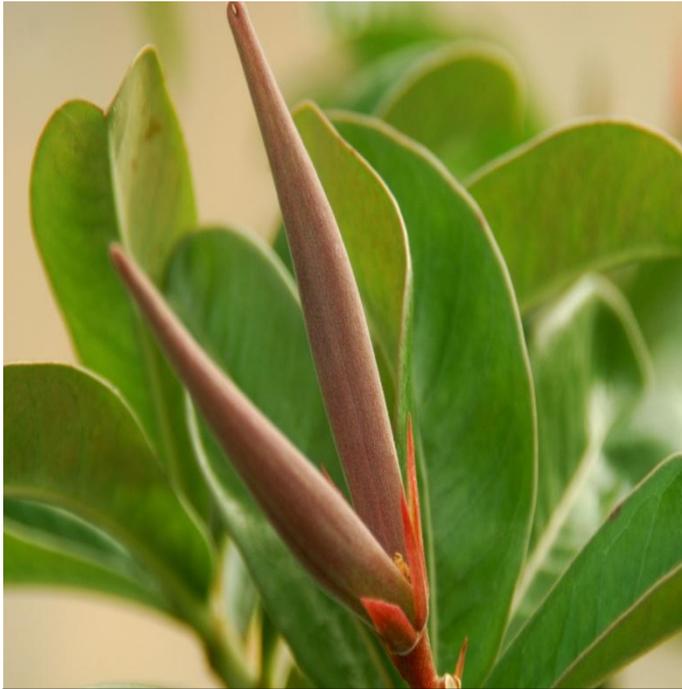
Mature Obesum plants can produce hundreds of blooms to the delight of the plant lover.

They start flowering when they are one year old, but they need to grow for another two or three years to see their full form.



ADORABLE ADENIUMS





Adenium seed pods take about 3 months to mature



Matured seeds spilling out of seed pod

ADORABLE ADENIUMS



Adenium seed pods protected with insect net



Baby seedlings, just 2 months old, ready for transplantation to pots

ADORABLE ADENIUMS





ADORABLE ADENIUMS





ADORABLE ADENIUMS





2 VARIETIES OF ADENIUM

Adenium Arabicum:

Originally from Western Africa, they are characterized by massive caudex, multiple branches, long leaves with rounded tips, heavy foliage and fairly big seed pods that look like horns of cattle.



Adenium Arabicum : about 8 years old hybrids.
Picture credit: Adeniums India (CC BY SA sharing)

Adenium Socotranum

Endemic to the Islands of Socotra, east of Somalia.

Socotranums are slow growers but can grow very huge in the course of ten to fifteen years with caudex similar to baobab tree and magnificent display of branches above the hefty base.



Adenium Socotranum (Bottle tree), Socotra Island. Picture credit: Rod Waddington: CC BY : Wikimedia-[creative commons license to share]

ADORABLE ADENIUMS

Adenium Somalense:

Can range from a small tree to a fifteen feet tall giant with a very wide and conical caudex. Long leaves bright green in color. Small flowers with narrow pointed petals.



Adenium Somalense



Somalense Var Nova

Adenium Swazicum:

Shrubby shaped plant spreading horizontally. Small caudex.

Long narrow leaves wide at the tip.

Broad petalled flowers often with darker centers.



Adenium Swazicum, Pretoria. Picture Credit: JMK (own work) :
Creative Commons license : CC BY SA: Wikimedia.

Adenium Multiflorum:

These are native to East Africa, particularly to Mozambique, Zimbabwe and neighboring countries.

They have star shaped flowers and the plants can grow as tall as 11 feet in height and the caudex can grow up to a meter in diameter.



Adenium Multiflorum: Picture Credit: Kaycee Klinedinst
Creative Commons sharing license: CC BY : Wikimedia

Adenium Crispum:

Native to Somalia, these are slow growers and it takes about 5 years for the plant to reach 8 inches high and will start flowering after 2 years.

Small form, turnip shaped caudex.

Narrow and long leaves with wavy edges.

Flowers are characterized by curved petals.



Adenium Crispum : Picture Credit:

Tucsoncactus.org : Creative Commons Sharing:

CC BY license : Wikimedia.

3 HYBRIDS AND CULTIVARS

By cross pollination of *Obesum* with *Swazicum* and *Arabicum* some amazing varieties have been produced by breeders across the globe.

Similarly *Crispums* cross pollinated with *Somalance*, *Swazicum* and *Obesum* have produced exotic hybrids which are collectors delights and breeders pride.

In the course of the past fifty years *Adeniums* have seen tremendous popularity thanks to their capacity to yield to cross pollination and experimentation.



VARIEGATED TYPE

There are numerous variegated types with pleasing leaf patterns and colors.

Nature plays on Adenium leaves to form such wonderful designs.

Pictures credit: Adeniums
India : CC-BY-SA sharing



DORSET HORN

This type has a chubby caudex and curly leaves.

With close cluster of leaves on short stems that get completely concealed by the broad and shiny leaves, it is a lovely plant to have in any collection.

Photo credit: Adeniums India :
CC-BY-SA license to share



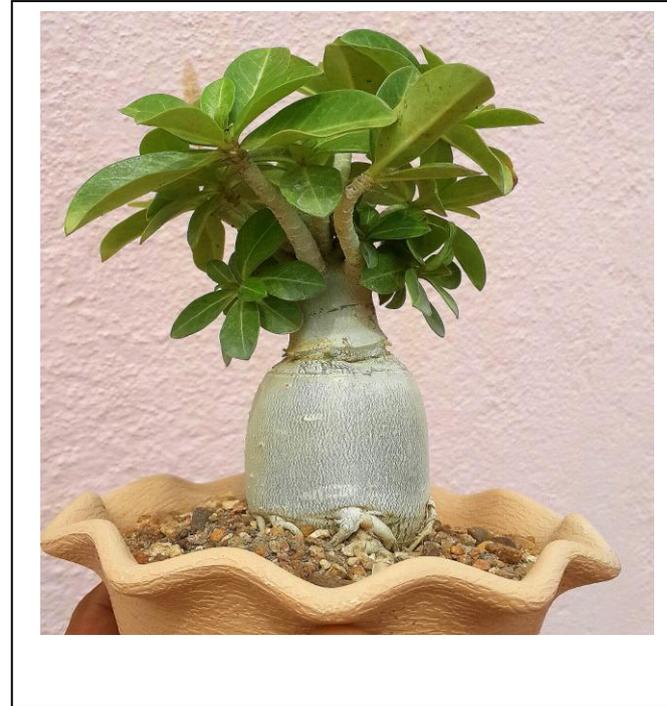
THAI SOCOTRANUM

Thai Socotranum is a lovely cross breed, with showy bottle like caudex and beautiful clusters of leaves that compete with each other on short stubby branches producing a distinct and pleasing form.

Thai Socotranum : Hybrid :

Picture Credit: Adeniums India

CC BY SA license to share

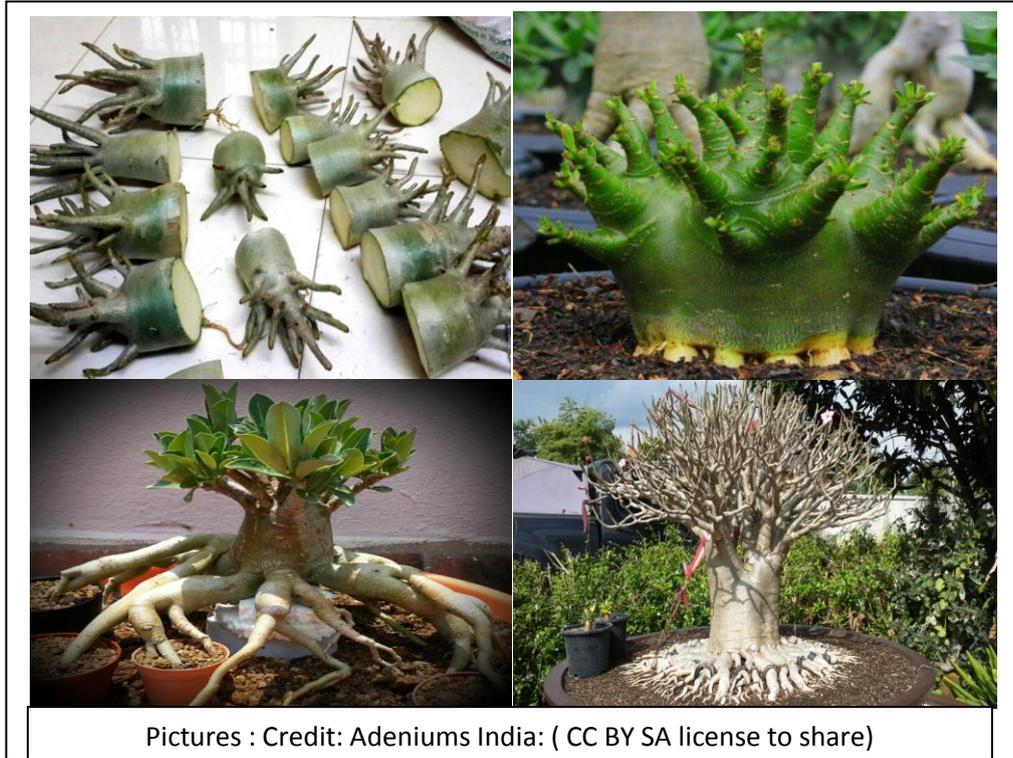


ROOT TRAINING

Another interesting trend catching up is the art of root training and branch wiring.

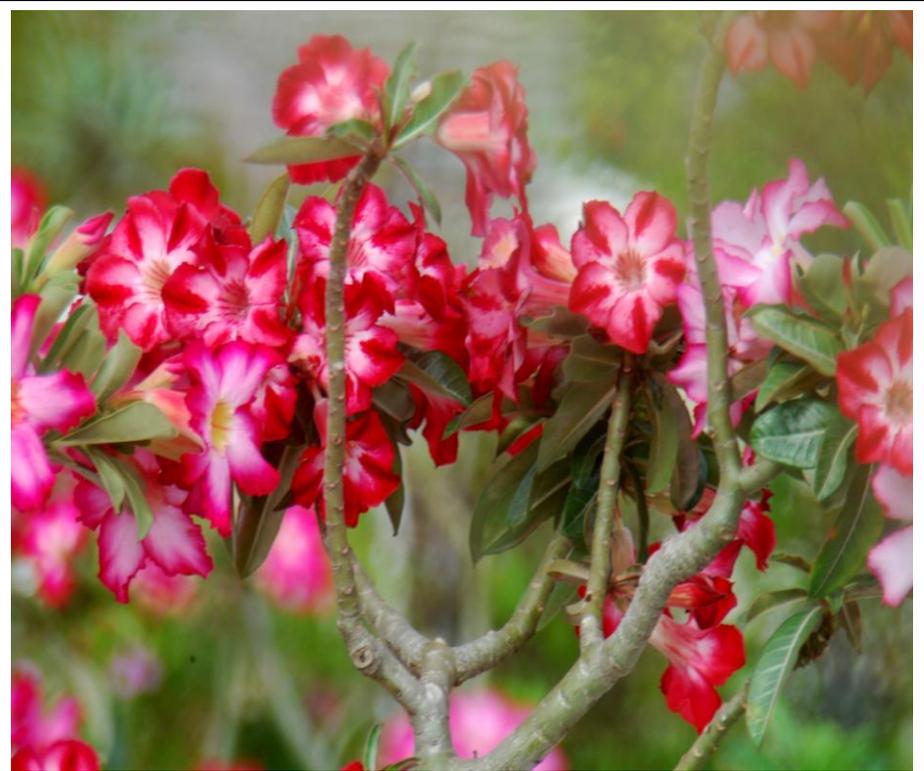
Thai Socotranums seem to be the favorites for this type.

The root stock of the plant is cut to get a flat base, applied with a fungicide coat and allowed to heal fully for a few days. The new roots are trained to form a spreading design.



Note:

With all the cross breeds and hybrids happening every day, it is not easy to identify an Adenium breed and it is better to accept them as unclassified beauties when we are in doubt, free to enjoy their magnificence all the same.



ADORABLE ADENIUMS





Magnificent caudexes shaped by 10 to 15 years of care in a sub-tropical farm in Chennai, Southern India

ADORABLE ADENIUMS



Majestic Adenium Obesum with a massive caudex



ADORABLE ADENIUMS





4 PESTS AND DISEASES

Adeniums are generally resistant to most pests and diseases but in rare cases they may be subject to attacks by pest like aphids, mealy bugs, spider mite, weevils or white flies. These seem to have developed resistance to the toxic sap of Adeniums and must be killed as soon as they become visible, by removing the affected leaves and destroying them.

Milk weed bugs (*Spilostethus Pandurus* or *Caenocoris nerii*) are orange colored beetles and they destroy the seed pods by feeding on them. They need to be watched for, removed and destroyed.

When you see them feasting on the seed pods, spray them with a dilute solution of vinegar or any other pesticide available in your area.

With repeated spraying over a period of a week or two, they can be eliminated from the plants.

In some rare instances virus infection can occur on leaves resulting in deformities and variegation apart from stunted growth.

The infected leaves need to be removed and destroyed, to prevent spread of this virus.

Some experts advice removing the plant and burning it off to prevent spread of this virus to other plants in a collection. I have not done it so far as I like the variations in color and design that comes from these virus affected plants and also they seem to have the ability to heal themselves in time.



CATERPILLARS

It is also common to see caterpillars or hawk moth worms at the start of spring season when the moths lay their eggs on the leaves. They seem to enjoy the taste of tender leaves of Adeniums and it is easy to miss them as the flower buds and fresh leaves fall prey to their ferocious appetite.



Caterpillar or Hawk moth worm

ar 2014 8

Look for their droppings which are like tiny black balls that appear around the plant base easily visible in clear contrast to the sandy soil. Remove the caterpillars with a stick or rod and move them to some weed plants far away, so they can complete their cycle of turning into butterflies.

It may be unfair to the bugs and caterpillars to treat them with such disrespect and rude shock, but in the larger interest of protecting the Adeniums there is no other effective alternative.



ADORABLE ADENIUMS









5 PLANT CARE

PRUNING:

Adeniums can grow wild without pruning and for those who like to let them grow as nature intended them to grow, they will be rewarded with unexpected forms and abundant flowering.

But to some it may be more appealing to prune them to shape so the plant may look more balanced and attractive. Pruning makes the branches and stems more strong and prevents sagging of the new stems with flowering.



Care should be taken to ensure that the pruning tools are sterilized before pruning to prevent bacterial and fungal attack.

Please remember always that the plants are living organisms and should be treated with loving care to make them happy and healthy.

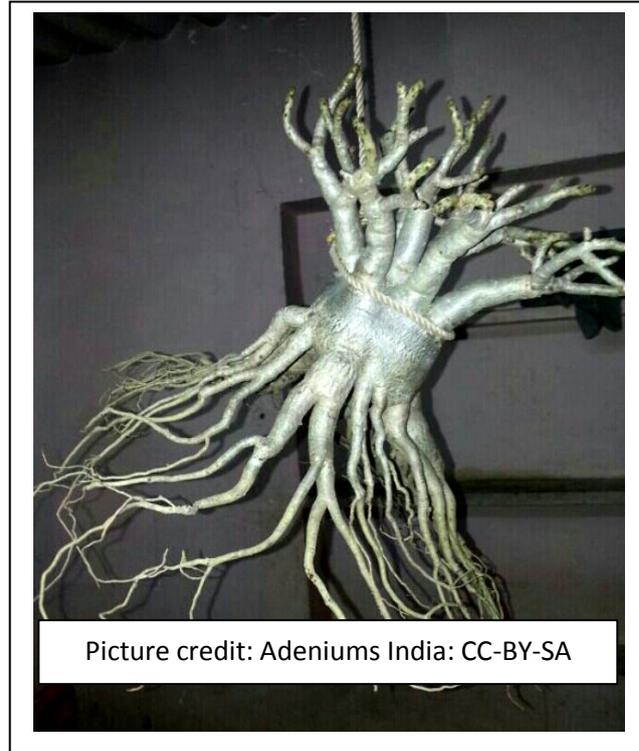
Keep pruning to the minimum and avoid unnecessary cuts and bruises.

Adeniums should not be watered for 3 days after pruning, to prevent rot.



ADORABLE ADENIUMS

Some people hang them after pruning for a couple of weeks before repotting them, to ensure better growth and healthier form. It may look a bit shocking or even brutal to novices like me but seasoned growers swear by the technique to say that it helps the plant to regain its vigor and maturity. I have avoided such shock treatments to my Adeniums except in a couple of rare cases where I noticed root rot spreading to the caudex and had to resort to surgery and consequent rest for the plant, by hanging it in the shade for ten days before replanting.



Occasional fertilization by foliar spray or root feed with vermi-compost or fertilizer pellets will get the plants looking cheerful and blooming to their best.

REPOTTING

Adeniums need to be repotted once in 2 or 3 years to allow the roots to expand and for the caudex to gain its unique shape.

The preferred time for repotting is just after the rains, for those in tropical and semi-tropical climates with a predictable monsoon pattern.

The advantage of this timing is that the roots can be inspected for any rot due to excessive moisture during the rain.

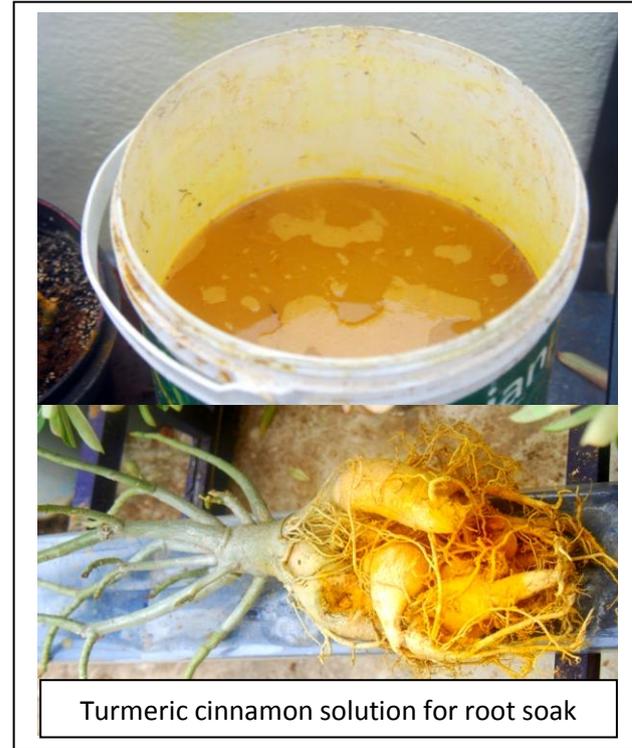


ADORABLE ADENIUMS

In cases where one notices rots setting in any of the roots, the plant can be rested in shade after washing the roots and brushing them with a suitable fungicide solution.

I experimented with a completely new way to protect the roots with a solution of Turmeric powder mixed with Cinnamon powder in clean drinking water, as it is organic and plant friendly. I have found it to be quite effective and have been using it for the past few years with good results on all my Adeniums, for repotting.

Five liters of water with 100 grams of



Turmeric cinnamon solution for root soak

turmeric powder and 20 grams of cinnamon powder added together and mixed well by stirring into a smooth solution can be used to treat over 30 plants or more and can be kept for several days for repeated use if so desired.

The roots that have signs of rot need surgical removal of the rot with sterilized knife and scooping instrument which are easily available at medical supplies. Dipping and wiping the knife and scoop in denatured spirit before use will ensure that the plant is saved from further rot and after resting



them for about ten or fifteen days to make sure that they are completely healed, they can be repotted in bigger pots, taking care to lift the caudex well above the top level of filling material and letting the roots be fully covered.

After repotting, the plants can be watered just enough and kept in partial shade for a week before moving them into full sunlight and regular watering cycle.





ADORABLE ADENIUMS





6 GRAFTING

Adeniums lend themselves very nicely to grafting and it is a pleasure to watch the grafts grow and mature into beautiful branches that carry the blooms that are identical to the mother plant from which the graft was taken.

Flat grafting is by far the most preferred method although there are some who still use V-graft method which is well established.

In the flat graft method the base plant is cut flat about 5 or 6 inches



above the caudex, with a sterilized knife and the sap allowed to drain off for a few seconds.

The graft of about a centimeter in length, having a couple of bud spots, freshly cut from the branch of the mother plant or donor plant, is then placed at the top of the base plant or receiving plant.

A piece of thin transparent plastic sheet is tightly wrapped over the graft and securely held in position with the use of a



rubber band or polythene wrap material cut into thin strips for this purpose. One can experiment with different ways to hold it in position and it is not very complicated, once we get the knack of it by trying it out on a few grafts.

The graft will show signs of success within a week. It will still be green and firmly attached to the plant.

The plastic wrap is to be removed after 8 or 10 days from the day of grafting. The plant will grow new sprouts from the grafted piece and any other growth if seen from below the grafted piece will have to be removed so the graft can establish and grow well.



The V-graft is another method where the plant stem of root stock is cut in the shape of a V cut and the graft piece is also cut to match the same so it can sit in the groove so formed. Again the grafted piece is held firmly in position by wrapping it with a long piece of polythene ribbon and tied firmly. Alternatively rubber band can also be used to secure it in position. It will take about 8 to 10 days for the graft to merge with the root stock and the wrap is to be removed by that time to allow the graft to get

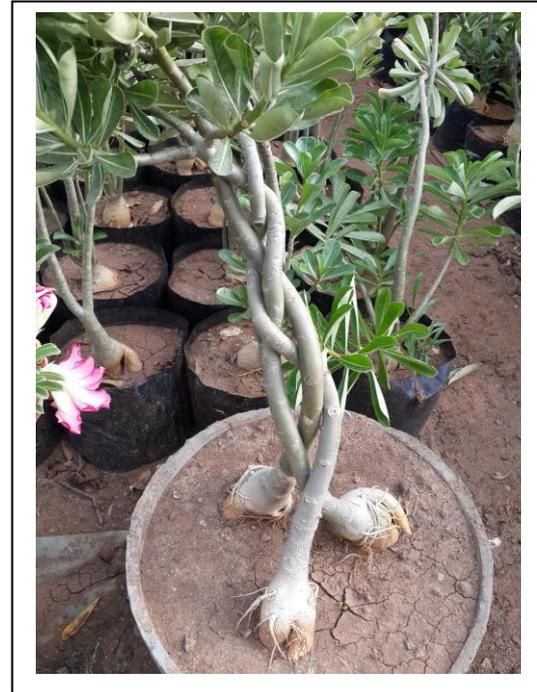


fresh air and start sprouting.

Watering is to be avoided for this period of 10 days after which the plant can be treated with the same watering cycle as before.

It is also interesting to graft different colors on to different branches of the same plant and within a few months the plant will sport multicolored blooms that will be a joy to watch.

Pleating and carving are some of the other variations that Adenium enthusiasts try on their plants with some interesting results but they are not favored by most who prefer to keep it traditional.





ADORABLE ADENIUMS





ADORABLE ADENIUMS





ADORABLE ADENIUMS





ADORABLE ADENIUMS





ADORABLE ADENIUMS



7 SHARING

The more we share, the more we grow. Here we share some glimpses of the single petal and multi-petal forms in a vase array of colors and intricate designs in the gallery apart from those that have been interlaced with each chapter.

The vast number of cultivars and hand germinated cross breeds wouldn't have been possible if there was restricted sharing.

We owe it to the pioneers in this field, for their patience and perseverance in giving birth to rich varieties and pleasing combinations of colors in single-petal and multi-petal forms.

There are so many and their numbers keep increasing every day and therefore it is not easy to include all of them in a small compilation like this which is meant to provide a basic introduction to anyone interested in knowing about Adeniums.

The reference sites provided at the end of this book could help the reader in knowing more and to start his own collection if so desired.

GALLERY

Here are some glimpses into the single-petal and multi-petal forms of intricate design that characterize the vast scope of possibilities with hybridization in the field of Adenium cultivation.

It is by no means exhaustive but simply an attempt to provide a visual treat to Adenium lovers and the general public who are coming into contact with this wonderful species for the first time.

If it generates enough love and awe for this adorable plant we would be happy that our purpose is served.





ADORABLE ADENIUMS





ADORABLE ADENIUMS





ADORABLE ADENIUMS





ADORABLE ADENIUMS





ADORABLE ADENIUMS





ADORABLE ADENIUMS



ar 20140105



ADORABLE ADENIUMS





ADORABLE ADENIUMS



AUTHOR:

Dr. Anant Raman

Instrument engineer by profession,

Yoga specialist by choice

Humorist by God's grace,

Sunday painter, Photographer, Terrace gardener and Freelance writer

among countless other things that keep me thankful

for being alive at this wonderful time, on this divine earth.

Feel free to contact me :

Email : laughingflowers@gmail.com

Face book : www.facebook.com/dr.anantraman



Technical support and inspiration provided by:

Mr. Jalandar Reddy

Adenium grower with a lovely farm about fifty kilometers from Chennai where he can be seen in the company of more than a hundred thousand Adeniums in different stages of cultivation, grafting and care.

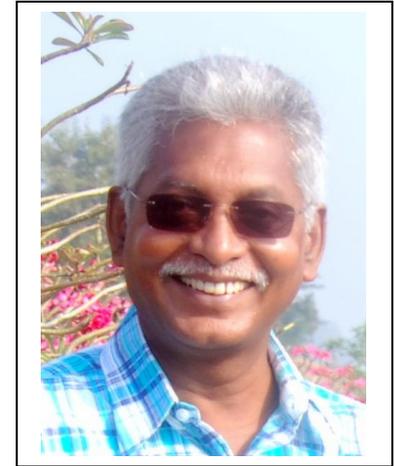
Has been very generous in sharing his knowledge and bringing down the market price of several varieties and cultivars of Adeniums for the past fourteen years and his admirers keep growing day by day.

Can be contacted at:

Email : adeniumsindia@gmail.com

Web : www.adeniumsindia.com

Face book : www.facebook.com/adeniumsindia



REFERENCES

(1) For varieties of Adeniums, grafting and tips including ordering Adeniums on line for delivery anywhere in India: www.adeniumsindia.com

(2) For sharing with other Adenium lovers:

www.facebook.com/adeniumsindia

www.facebook.com/adenium

ADORABLE ADENIUMS

In the world of flowers Adeniums occupy a special place and Adenium lovers seem to consider it a princess among flowering plants. New forms, patterns and colors are introduced almost every day by hybridizers and enthusiasts sharing a passion that crosses boundaries, across a hundred countries in five continents. Once you experience the beauty of this plant you are most likely to join the millions of people who love and share Adeniums in various nurseries and gardens. The objective of this compilation is to give a glimpse into the beauty and versatility of Adeniums and let people experience it in all its glory, on their own. Welcome to the world of Adeniums also known as Desert Rose.

