

## The Plumeria Society of America, Inc.

January 2013

# Plumeria Potpourri

Next Meeting: Tuesday, January 8, 2013, 7:30 p.m.

Houston Garden Center in Hermann Park

1500 Hermann Drive, Houston, Texas

Anyone with an interest in plumerias is invited to attend &

## Come to the January meeting!

Speaker: John Ferguson M.S., P.G.

Owner: Nature's Way Resources, Conroe, Texas

Topic: Soil Biology and the effects of mulch and

compost on plant growth and health

Website: http://www.natureswayresources.com





NATURE'S WAY

Jack's Yellow Compact

JL Hula Girl

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by Mark Wright, Texas

**President's Corner** 

email: wright5447@sbcglobal.net

Twenty years ago when I married my lovely wife, she had three plumeria trees. Preparing for winter weather was very simple then. Each year the joy of plumeria ownership becomes less joy and more of a chore. I think I have over collected.

I have done all the easy things one can do. We make little trees out of big ones. We have expanded into areas of the yard that have never held plumeria before. Short of filling in the pool, or adding a flat roof to the house, our limit has been met. With sentimental trees, old favorites, and new exciting seedlings, space gets used quickly.

This is why yard tours are so useful. Pictures tell only one side of the story—the best one. How much down time is there between pictures? How hardy is this variety? How tall does it get? Does it branch easily? Seeing a tree growing in someone's yard near your home is worth lots of pictures.

Yard tours are one of the best educational tools our groups have. In a relaxed setting, novices can gain some of the knowledge our experts have.

Everyone is entitled to make as many bad judgments as I have, and I encourage you to do so. Not because misery loves company, but because this is how we learn. This year I wrestled with and dragged in seventy-eight trees of various sizes and weights. This took two days. Was it worth it? Yes it was! This year only one tip was broken. Perhaps I am still learning.



The Plumeria Society of America, Inc.
P.O. Box 22791
Houston, TX 77227-2791, USA
Dues are \$25 per year

## Plumeria Societies around the World

The Plumeria Society of America, Houston, Texas, USA, www.theplumeriasociety.org
Southern California Plumeria Society, San Diego, California, USA, www.socalplumeriasociety.com
South Coast Plumeria Society, Huntington Beach, California, USA, www.southcoastplumeriasociety.com
The Plumeria Society of South Texas, Corpus Christi, Texas, USA, John Balcar (361.779.3181)
Valley of the Sun Plumeria Society, Phoenix, Arizona, USA, www.azplumeria.org
Frangipani Society of Australia, NSW, Australia, www.frangipani.org.au
Australasian Plumeria Society, www.austplumeriasoc.herobo.com

## The Case for Using Squat Pots—Part 1

There are many different pot designs on the market. Different pot shapes are designed to fit the growth habits of different plants. Which pot fits the plumeria roots growth habit best? Most people use the standard pots in which to grow plumerias, mainly because they are widely available. Is that a good choice? In order to make that judgment, we need to first understand how plumeria roots grow (Part 1 of this article). In Part 2 of this article, we will discuss which pot design fits the plumeria roots growth the best and what happens to the root system if we use other pot designs.

Most people grow plumerias from cuttings. Some people graft plumerias on seedlings. Cuttings and seedlings grow roots in a different way. Plumerias grown from cuttings develop most roots on the perimeter of the cambium line, just a few minor roots from the bottom of the cutting, and no roots grow from the side of the bark. The roots that grow at the perimeter of the cambium line point outward and generally grow on the plane of the

cambium line. The picture to the right shows a bottom view of the roots of a 5-month-old plumeria. Clearly all the roots point outward at the plane of the cambium line. There is no taproot in plumerias grown from cuttings.



The following pictures are of a top view (on the left) and a bottom view (on the right) of the roots of a 4-month-old plumeria. Brown roots are older roots, and white roots are roots that are currently growing. The picture on the right shows the myriad of feeder roots that are developing on the side of primary roots. These feeder roots are

### by George Hadjigeorge, Texas



the roots that fill the pot quickly. The primary roots also grow (have white tips), but grow more slowly than the feeder roots (length of white at the tip of primary roots is short). All the roots emanate at the plane of the cambium line. There

are generally very few roots growing downward. I iust sat the

plumeria on top of the table! The picture on the left (above) shows what happens when the primary roots hit the pot



wall; they just bend and circle around the pot.

So, concluding on how plumeria cuttings roots grow:

- a) Most roots grow around the cambium line.
- b) Very few roots grow at the bottom.
- c) Most roots point outward.
- d) There is no taproot in rooted cuttings.

What about plumerias grafted onto plumeria seedlings? It is well known that plumeria seedlings develop a taproot like trees when the seeds sprout. What is important, though, is how seedlings develop roots, and what happens to the taproots as the seedlings mature. Most people believe that the taproot of seedlings continues to grow and eventually rolls around the pot bottom. People also believe that seedlings are anchored better in the ground than plumerias grown from cuttings because of their taproot. Let us take a look at some older seedlings to better understand the root system of seedlings.

The next picture shows a 2-year-old plumeria seedling. The taproot tapers down to relatively



small roots very quickly, over a distance of about 5". A lot of strong side roots develop from the side of the taproot and point outward and spread.

The next picture shows a 4-year-old seedling, grown in a 5-gallon standard pot. The taproot is

only about 5"
long. It tapered
down very
quickly and
disappeared
into "normal"
size roots. The
stronger root on



this seedling comes from about 1" below from the top roots from the side of the main taproot. It hit the pot wall and bended inside and rolled at the pot bottom. Most roots are growing outward and down at about 15 degrees. This is why they hit the pot wall so quickly.

Below are four pictures of 4-year-old plumeria seedlings grown in 5-gallon standard pots. Their



taproots disappear after about 4"-5". None of them has a taproot rolling around the bottom of the pot. The roots point outward,

hit the pot wall, and change direction. Roots come

out from the side of the bark over a distance of 4"-5" as compared to plumerias grown from

cuttings, whose roots come out on a single plane at the perimeter of the cambium line. This is the reason seedlings are anchored better in the ground than plumerias grown from cuttings—not because they have a taproot that anchors them better. These pictures also show that plumeria seedlings have a much better and more vigorous root







system than plumerias grown from cuttings.

Seedlings have a much better root system that can withstand windy conditions much better. What makes plumerias grown from cuttings more vulnerable to wind damage is when the perimeter



of the cambium line only partially fills with roots. As the picture to the left shows (photo provided by Thomas Cox of California), this mature plumeria was uprooted by wind because it had strong roots East and West

and very weak roots North and South. As it swung in the wind, one major root broke and that was the end of that; all the major roots broke. This cannot

happen so easily to a seedling because of the multiple layers of roots over 4"-6" of trunk, which keeps the plumeria base from swinging in the wind.

Concluding, both plumerias grown from cuttings and plumerias grafted onto seedlings have root systems that spread outwards. Seedlings, even though they develop a taproot when the seeds first germinate, have a taproot that ends within 4"-6" from the soil line. In addition, seedlings develop a lot of roots from the bark of the taproot over a distance of 4"-6". Plumerias grafted on seedlings have multiple layers of spreading roots as compared to plumerias grown from cuttings, which have only a single layer of spreading roots at the cambium line. As a result, plumerias grafted on seedlings are anchored in the soil much better than plumerias raised from cuttings.



## **Truth or Myth?**

#### by Lynn Pettigrew, Southern California

"The world is flat!" A more recent myth widely circulated amongst "plumerians" said that making angle cuts on plumeria cuttings increased the surface area of rooting. George Hadjigeorge busted that myth in recent *Potpourri* issues.

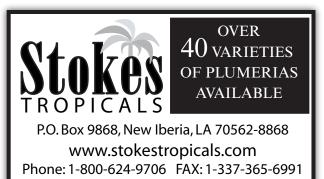
However, what other myths are being circulated in the plumeria community? For instance, is it really better to remove inflorescences when starting to root plumeria cuttings? Is it myth or fact that removing every inflo will direct all the energy into root production rather than into flowering? On the other hand, does the inflo provide a reservoir of latex to nourish the new cutting? Both theories sound logical, yet contradictory. Hey, maybe this is a new myth for George to bust!

Here's another concern: Never plant cuttings deeper than 3"-4", even if you need to devise elaborate staking techniques. Truth or myth? Granted, root rot is the number one enemy of plumeria cuttings, but I often start cuttings approximately one-third below ground level. Thus, my 30" cutting may be planted 10" deep, and this keeps the cutting steady without shearing the fragile new roots with every jiggle.

Finally, let's say your favorite *Hilo Beauty* "stick" still has no mature leaves after two months. You gently remove the cutting and, yes, it is still firm, but it has no roots. Question: Is it wise to dip the cutting in Rootone® a second time before repotting it, or would this prove harmful?

As a newcomer, these are some of the basic questions I ponder to this fine art of growing plumeria. Enjoy!







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## The Plumeria Society of America Website

Additional information concerning The Plumeria Society of America and culture of plumeria plants may be found on the World Wide Web at the following address:

#### http://www.ThePlumeriaSociety.org

A listing of currently registered cultivars — Research Committee Bulletins — PSA By-Laws Plumeria Care Bulletins — Photos from past events — Map links to meeting and sale sites Photos of plumeria plants and flowers — past color insert pages in PDF format

## Purpose of The Plumeria Society of America

- Promote interest in and increase knowledge of plumeria hybridization, propagation and culture of plumerias.
- (2) Share this knowledge with hobbyists interested in plumerias.
- (3) Provide a register for recording, identifying and classifying by name new types and varieties of plumerias.
- (4) Encourage and unite plumeria enthusiasts around the globe, throughout America and across the seas.

#### PSA Calendar — 2013

- All regular meetings are held at the Houston Garden Center in Hermann Park, 1500 Hermann Drive, Houston, TX. Meetings begin at 7:30 p.m.; workshops begin at 6:45 p.m.
- Bring your blooms. Bring your friends.
- Bring plants, cuttings, etc. for door prizes! These can be anything, not just plumerias.
- Visitors are invited and encouraged to attend.

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Copy this page for all your friends who love plumeria or just want to know more about them.

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