The Plumeria Society of America, Inc.
January 2011

Plumeria Potpourri

The next meeting of The Plumeria Society of America will be held
Tuesday, January 11, 2011, 7:30 p.m.
at the Houston Garden Center in Hermann Park
1500 Hermann Drive, Houston, Texas.
Anyone with an interest in plumerias is invited to attend.

Cuttings 101

The January 11th meeting of the PSA will feature a full discussion about cuttings ... why we take them ... how to take them ... and the best times to take them will all be discussed. Audience participation is encouraged. Arrive early to mix and snack. Bring items for door prizes, if possible, or something for show and tell.

In this Issue

President's Corner

by ***Mark Wright, Texas***
email: wright5447@sbcglobal.net

Happy New Year!

There are three people that will be starting the New Year off by winning a $50 gift certificate from Florida Colors Nursery and being the proud owner of a new plumeria or two. The lucky winners are Ernest Spillard, Jerry Belflower, and Shawn Teel whose questions were selected as the winners of the Question Contest. In future issues of this newsletter, plumeria experts from around the world will give various and enlightening answers to the questions we received.

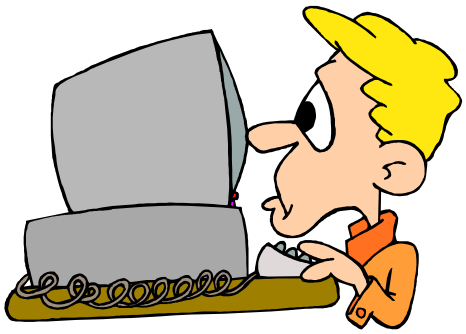
We learned some interesting things from this contest. The majority of the questions were about seeds or seedlings. This is an area we will explore in greater depth this year.

The offer to place plumeria-related events in the calendar section of the PSA website is still open. Please contact me if you or your group has an event that needs publicity!

I will continue to ask for your donations of cuttings and plants for the Naples Botanical Gardens. I have never been to Naples, Florida, but I support botanical gardens everywhere. If the young are not exposed to plants, iPods® and Xboxes will become their "nature."

Last bit of housekeeping: If you have already thrown away the envelope this newsletter came in, go get it out of the trash. Look at the mailing label. Above your name is a date. This date is your membership expiration date. Memberships are now good for a year from when you pay your dues. This date will be on every label, every time you receive anything from the PSA. With a current membership, you have access to the Members Only parts of the PSA website, can participate in the Yahoo!® Group, and will continue to receive this newsletter. At the price of $25, that's not a bad deal!

LOOK AT YOUR MAILING LABEL



YOUR LABEL HAS YOUR MEMBERSHIPS EXPIRATION DATE!

International Plumeria Conference Postponed

The International Plumeria Conference planned for this summer has been postponed to a date as yet to be determined. A speedy world-wide economic recovery would aid in making this decision easier. We will publicize this date well in advance.

Preserving and Rooting Plumeria Cuttings with Plastic Wrap

by ***Mark Terrill, Texas***

Abstract: Different methods of wrapping to minimize dehydration of plumeria cuttings were evaluated. It was determined that plastic wrap is very effective at maintaining the weight of cuttings and avoiding shriveling during long winter storage. The wrap method recommended does not interfere with the cuttings coming out of dormancy, allows for inspection, and speeds rooting. The method was applied to fresh cuttings during the growing season. The method can also be used to rehydrate and feed cuttings prior to rooting. Risk and risk management are discussed.

Purpose: Well-hydrated cuttings can better transport components needed to manufacture proteins that fight infection or supply new roots and growth. Well-hydrated cuttings will start roots sooner and develop first roots faster.

If we heat our homes in winter, the air drops in humidity and becomes thirsty for water. Cuttings stored over winter this way may show significant shriveling.

Procedure: Nearly two hundred cuttings were taken by the first week of December 2009. The cuttings were stored indoors to be rooted the following April.

Group A were cuttings that were not wrapped.

Group B were cuttings wrapped in newspaper, going around the cuttings roughly three times.

Group C were cuttings wrapped the same way with newspaper but had rubber bands around the newspaper at each end.

Group D were cuttings wrapped in plastic wrap, pulling and twisting the wrap tightly around the cuttings with at least two layers.

Group E were cuttings wrapped with plastic wrap the same way but had rubber bands sealing the ends of the rolled wrap.

With all the wrapped cuttings, the tips and ends of the cuttings were allowed to extend beyond the wrap. It was preferred that the cut ends continued to have fresh air to keep them dry. In the spring, photo receptors in the epidermal layer determine that the days (photo periods) have become long and the cuttings become active.

Artificial light was neither used to extend the natural winter photo period nor to brighten the natural lighting. Soft indirect light was available through nearby windows. Room temperature was typically 65º F.

Evaluation of Stored Cuttings: By April the cutting groups were evaluated. Cuttings were only evaluated by sight and feel. My postal scale had quit working and there was no other scale available with adequate sensitivity.

Group A had considerable dehydration with obvious shriveling and significantly less weight.

Group B was essentially the same as Group A. It was hard to determine if the unsealed newspaper wrap did any good.

Group C, newspaper with sealed ends, seemed to be slightly better than Group A under close scrutiny but the improvement was not immediately obvious.

Group D, with the plastic wrap, showed no obvious shriveling and was significantly heavier than Group A.

Group E, with the rubber bands sealing the ends of the plastic wrap, was clearly better than Group D with both weight and firmness.

New Cuttings for Rooting: In the summer of 2010 through September 2010, plastic wrap was used on new cuttings to be rooted. Wrapped cuttings maintained their weight much better than unwrapped cuttings, as expected.

Judgment enabled by years of rooting experience and past experience with most of the cultivars indicated the pace of rooting benefited by the wrap. While dates of interest were recorded, there were neither adequate control groups nor records of cultivar type, cutting length, and before-

and-after weights to adequately quantify the comparison of methods.

Plastic Wrap as a Rooting Enclosure: Other prior tests have demonstrated that cuttings only need humid air space to send out roots and that the cuttings will supply adequate moisture into any small enclosure to both establish and maintain humid air.

Figure 1: A previously dry air bag has become wet in only a few days.

A number of cuttings were rooted with only plastic wrap over the cut ends. The problem with this method is the roots follow the folds or spiral within the plastic wrap—removing the wrap without root damage is difficult.

The photo below is of my dog Snickers and one such plastic-wrapped rooted cutting.

Figure 2: A cutting has rooted with the end wrapped in plastic wrap.

While the rooting cutting can be wrapped in plastic wrap, the preferred way to see the formation of first adventitious roots is to have the rooting end in a small rooting bag with medium.

Figure 3: Two cuttings have formed roots in the humidity of air bags with only the cuttings providing moisture.

Figure 4: Photo taken October 6, 2010. Cuttings taken August 9 and August 2, 2010 were wrapped with Saran™ wrap and rooted in air bags. It is not recommended to allow roots to grow this far in an air bag because the roots may gather condensate, become drenched, turn black, and die.

Rehydrating and Feeding Cuttings: With tub soaking of cuttings prior to insertion into a rooting medium the dried cut end becomes wet.

As an alternate to tub soaking, a wet plastic wrap method was used. Some of the over-wintered cuttings of Group A, B, and C were used. Carl Pool rose foliar feed and either SUPERthrive™, VitaZyme®, or both were added to water according to the product instructions. A sprayer was used to apply the solution. The cuttings were sprayed until dripping wet. The inside of the plastic wrap was sprayed just before the first wrap was made. The wrap was made from 2–3 passes around the major portion of the cuttings and the ends sealed with rubber bands. The cut ends were allowed to extend beyond the wrap and remain dry.

Cuttings were allowed to remain wet overnight without issues. Some cuttings were allowed to remain wet in this way for up to two weeks resulting in some rotting (black soft tissue) at some of the leaf scars.

It is unclear if this treatment helps to speed rooting as there was no control or comparison group, and cuttings varied significantly in size and cultivar type. Some cuttings had their weight measured with a postal scale before and after soaking without any measurable increase in weight. The resolution of the postal scale is one-quarter of an ounce.

Risk Management: Cuttings that show some untreated necrosis at leaf nodes or anywhere on the epidermal layer should not be wrapped. Even if the cutting surface and plastic wrap is very dry, the humidity level between the wrap and cutting will climb, supporting the necrosis.

Using plastic wrap to soak cuttings with water and foliar feed should not exceed 12 hours. After cuttings are soaked with this method, they should be closely inspected for developing necrosis, quickly dried, and any infected areas treated.

Plastic-wrapped cuttings exposed to direct sunlight in warm weather will suffer serious damage as the temperature within will cook the latex, killing the tissue. Brief periods of direct sun exposure are okay especially during cool and windy days of early spring. Once the weather warms and the sun is more directly overhead, the plastic-wrapped cuttings should only get indirect sun, dappled light, or brief early morning direct sun with shade for the rest of the day.

Cuttings in air bags should be checked often to assure condensate has not drenched the cut end resulting in black rot. The new white roots more often than not gather condensate until they become wet, turn black, and die.

Upon the first sight of roots emerging, the cuttings should be placed into a medium that can sponge away excess water. This can be in pots, rooting tubes, or rooting bags.

The primary purpose of a rooting mix in a rooting bag, other than filling the bag, is to assure moisture stability while providing ample air spaces of humid air. Initially the cutting can provide more than enough moisture for both first roots and the air spaces. The mix should be moisture neutral, have only enough dampness so as not to dry out the air and not so much water that it cannot sponge away any accumulation of water on the cut end or roots.

Occasional condensate on the inside of the bag is normal and acts as a reserve of moisture. This reserve of moisture is useful initially for when temperature changes cause the air to become thirsty and later when new leaves cause the roots to remove moisture from the bag.

Figure 5: Photo taken September 24, 2010. Cuttings bagged on September 2, 2010 have filled with roots in 22 days. The rooting mix protects the initial roots from becoming drenched in condensate and supports the humidity of the air spaces. Once well rooted, the mix becomes dry but root damage from dry air is avoided.

Further Study: During the winter of 2010-2011, cuttings are being stored to provide quantitative measurement of the improvement of using plastic wrap. Only Group E, plastic wrap with ends sealed by rubber bands, will be compared to Group A, cuttings without wrapping. At the beginning, the lengths, weights, and cultivar type of the cuttings were recorded.

Studies using control groups and data records are needed to support whether soaking in plastic wrap is as good as tub soaking and to what extent either method is an improvement over no soaking at all.

Experiments with various conditions could indicate how to keep water from forming on new roots within an air-filled rooting bag.

Plumeria Society 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

(1) 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 — 2011

January 11 ..... meeting

March 8 ..... meeting

May 10 ..... meeting

June 11 ..... Show & Sale I (Clear Lake)

July 12..... meeting

August 13..... Show & Sale II (Katy)

October 11 ..... meeting

TBA .....Fall Social

- 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.

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

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