

Next Meeting: Sunday April 11, 2010

At 1:30 PM - at the ADMINISTRATION BUILDING OF THE BARNSTABLE COUNTY FAIRGROUNDS - 1220 Nathan Ellis Hwy, (Rt. 151) East Falmouth, MA 02536 (White fences on North side of Hwy.)

Greg Butler - Oak Hill Gardens

“Beyond the Flower: Appreciating the Idiosyncrasies of Orchid Species”

Greg grew up on the East Coast of the United States of America. He has been a Boston Red Sox fan since 1967. He was graduated from the University of Notre Dame in 1981 with a Bachelor of Business Administration/Finance. For 15 years out of college he was employed with Wallace Computer Services..... In 1996 he removed his monkey suit and noose in favor of shorts and a t-shirt, and entered the wonderful world of orchids at Oak Hill Gardens. He had the incredible foresight (and good fortune) to marry Liese Pigors (founder Hermann's daughter) about 10 years earlier, hoping someday for a shot at orchid infamy. Upon joining the Oak Hill Gang he instantly became the “idiot son-in-law” that every family business is loath to take on board. The company has remained in business to this day despite his best efforts to run it into the ground. His duties include, but are not limited to, sweeping the head house and driving the van. He reports directly to his wife.

Greg and Liese have two intelligent and handsome teenage sons, Cameron and Jared. Greg's hobbies include road cycling, skiing, guitar and drinking wine. He also likes to hold hands on the beach watching the sunset while dancing naked in the rain.

Oak Hill has a great selection of plants, especially species, available for purchase, so please place your order directly from their great web page www.oakhillgardens.com Ordering plants directly saves you a lot of money on shipping and handling and you usually receive the best plant available on the bench. **Deadline** for pre-ordering plants is **April 6th at 3:00 p.m.** Don't forget to note that you want any plants you ordered brought to CAIOS meeting on 4/11/2010. He'll also bring plants for sale.

Oak Hill Gardens (847) 428-8500 phone
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Dundee, IL 60118

And a small raffle, library, Show Table and as ever, a groaning board of favorite refreshments provided this time by Esteemed Members **M-Z**.

When last we met: Joanna Eckstrom showed the Society slides and lectured on how orchids tell their stories of sickness and health. A lively interactive time followed and we learned a lot. Thanks, Joanna!

A Connecticut Orchid Society-Gram, just in from Pres. Cheryl Mizak.

alcher@millenicom.com

Hi everyone!

COS has 3 events we would like to invite your members to attend.

1 Sunday April 25th, - The University of CT is opening their Dept of Ecology & Evolutionary Biology Greenhouse. COS in recognition of 50 years of support from UConn has constructed an epiphyte tree. We will be officially dedicating the tree on the 25th. The greenhouse will be open from 10 to 2, refreshments will be served. FYI - The tree has a 7 ft diameter and is 12 ft tall and is quite a sight. There will be guides posted through the greenhouse to offer explanation. All are welcome Please advise if you have any interest. (Off Torrey Life Sciences Building, use North Parking Garage, UConn, Storrs, CT

2 Sat May 1st We are having an orchid over night.. Several members have requested trips so we put together an over night at the Inn at Weston, VT with owner Bob Aldrich. Sat May 1st package includes lunch, orchid talk, tour of the greenhouse, dinner and breakfast Sun AM. The Inn is within walking distance of the Vermont. Country Store. All for \$299 double occupancy The Inn will be closed for the weekend for orchid folks.

Reservations are to be made through Cheryl Mizak. Checks for \$150.00 should be made out to the Inn at Weston. Reservations will be on a first come basis. Please email me then follow up with a deposit check. Address will be provided upon receipt of email.

3 We will be having an AOS judged show Oct 16 & 17 set up will be Oct 15th. The Name (Theme) will be Orchid Harvest. The venue will be Van Wilgans Garden Center in (N.) Branford CT. (Easy access from either Rt. 95 or Rt. 91) Please add the event to your fall schedules. We look forward to your participation.

Boston Flower Show Resurrected! Pres. Tina Balog summoned her slaves from far and wide and staged a spectacular 12' x 18', tall display anchored at one end by a detailed unveiling of the World of Vanilla*. Lucille Pavel receives the MVP Award (most valuable person) for the Boston Flower show set-up. "Lucille is a beginner at orchid growing. She showed up both days of set up and worked very hard the first day just grooming plants, the second day was at Jo Mayzel's right hand assisting in plant placement."

"But I also want to thanks all those who helped and or provided plants for this fantastic exhibit! The Sunday grooming and move in crew Liz Wolff, Valerie Knott, Cathy Fewore, Lucille Pavel, Nancy Burtis, Tom Gregg, Mike Sullivan, Brian Lieb, Chuck Crisler & Bob Richter. The Monday exhibit installation crew Jo Mayzel, Lucille Pavel, Nancy Burtis, Marsha Fredericks, Tom Gregg, and Bob Richter. Your help and plants for this event are very appreciated!

Thank-you all" -----Tina - Boston Show coordinator for All New England Orchid Soc. Display

* (see Tina's masterful story of Vanilla below)

From Robert J. Gordon (“Culture of the Phalaenopsis Orchid”, Laid-Back Publications, 1985

Section 23. Murphy's law for Phalaenopsis growers

Murphy's Law: If it can go wrong, it will. (Murphy was a phal grower.)

1. The more you paid for a plant, the greater the chances are for crown rot.
2. When you show your best phal, the judges will all be cymbidium growers.
3. Your best phal always blooms the day after an AOS judging... and gets sepal wilt the day before the next one.
4. The likelihood of a plant being awarded is inversely proportional to the owner's expectations.
5. Snails instinctively choose awardable phal clones. Corollary: AOS judges should take snail training.
6. Orchid shows are always preceded by 2 weeks of cloudy weather.
7. Flower production in all orchids is inversely proportional to the amount of care and fertilizer given.
8. The more you want a cross, the less likely it is to take. Corollary: mediocre crosses produce gobs of viable seed.
9. Gordon's Law of Pigmentation Perversity: (1) all greens are yellow; (2) all reds and blues are purple; and (3) all purples are blah. Corollary: any phal color is possible if you don't know what you're talking about.
10. A OS BULLETINS are aged for 2 weeks by the publisher before delivery to the Post Office.
11. AOS BULLETINS are aged for 2 weeks by the Post Office before delivery to the subscriber.
12. There is no correlation between empty greenhouse bench space and the owner's financial ability to fill it.
13. The first fallacy of pest control is that it exists at all. The second is when the phals are happy, so are the scale.
14. Pride goeth before crown rot. *Discovered and forwarded by Jack Martinelli*

May MEETING: The Giant Potting Workshop:

MAY 16, the THIRD Sunday At 1 PM, (NOT the 2nd, as mothers become peeved at such misuse of their cherished weekend of fame.)

A benefit for CAIOS members is free repotting at the GIANT potting workshop. It's a do-it yourself deal, so come expecting to get hands dirty. A reasonable number of your plants can be repotted by you and experts using our supplies. The meeting is outdoors under the tent, so dress accordingly.

The Society again welcomes the Famous Orchid Supplyists, Jan and Ulla Jurrissen of Kelley's Korner Orchid Supplies. They bring a wide range of stuff including the new Michigan fertilizers for tap or “pure”(rain) water. and their new KK Special Orchid potting mix. AND by ordering ahead, anyone can get free

delivery of any orchidaceous, bulky, desirable items. Get this, its **important** that anyone wishing bulk supplies (bark, pots etc.) or anything unusual, should, SO, call or fax or e-mail your needs to them **in advance**, thereby saving any shipping costs! **Catalog** -- www.kkorchid.com E-Mail info@kkorchid.com - fax - 207 439-8202, Ph. - 207 439-0922, Address - Kelley's Korner, Box 6, Kittery, Maine 03904.) Feel free to bring any special pots you want to use for your own stuff. Some experts will demo as time permits. We will pot 'till we drop.

Vanilla: a Feast for the Senses – Vanilla is from an Orchid!

Introduction

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- Of the thousands of varieties of orchids, the vanilla plant is the only one that has an edible fruit.
- Vanilla is a flavoring derived from the orchid of the genus *Vanilla* and belongs to a group of some of the most primitive known orchids.
- A Spanish or Portuguese word 'vainilla' means *little pod*.
- Vanilla was well known to ancient Aztecs and Totonac peoples when Cortez arrived in 1519.
- In 1754 botanist Philip Miller wrote about the genus in his Gardener's Dictionary *Vainilla* is derived from the root *vaina*, for sheath to describe the way the pod must be split open to expose the seeds.
- Vanilla vines are native to Mexico & Central America. Until 1850's Mexico was the #1 producer of vanilla.
- Vanilla flowers have NO fragrance & bloom from March – May.
- Early attempts to cultivate vanilla elsewhere were unsuccessful due to the symbiotic relationship between the vanilla vine and a local species of *Melipona* bee.
- In 1840 French shipped vanilla vines to the islands of Reunion & Mauritius.
- A 12-year old slave Edmund Albius from Reunion discovered how to pollinate the flowers by hand.
- By 1898 Madagascar, Reunion & Comoros Islands produced 200 metric tons of vanilla beans.

Biology

- *Vanilla planifolia* is the main species used to produce vanillin. Native to Central America it is widely grown throughout the tropics. Madagascar is now the largest producer of vanilla beans.
- *Vanilla pompona* & *Vanilla tahitiensis* (grown in Tahiti) have lower vanillin content.
- It grows in a band 25 or so degrees north or south of the equator prefers 80% humidity.
- Optimal Growing temperatures range from 68 degrees to 90 degrees Fahrenheit. Temps below 40 degrees will damage plants.
- The Vanilla plant grows as a vine climbing up an existing tree or pole (called a tutor).
- Left alone the vine will grow as high as possible (4 stories) on the support with few flowers.
- In cultivation, growers fold the plant downwards so the plant stays at easily accessible heights for easy pollination of flowers.
- One flower produces one fruit or pod. The flowers develop as clusters of 10-12 buds which open in sequence each lasting 12-24 hours.
- The flowers are hermaphroditic; they carry both male (anther) and female (stigma) organs. A membrane separates them **preventing** natural self pollination.

- The flowers are naturally pollinated by a specific *Melipone* bee found in Mexico.
- This unique bee is responsible for Mexico having a 300 year monopoly on Vanilla production.

Cultivation & Production

- 1841 a young slave Edmond Albius discovered a simple & efficient method of hand pollinating the flowers. A worker lifts the membrane separating the anther & stigma, using a small tool to transfer the pollen from the anther to the stigma – completing the self-pollination of the flower.
- Workers have 8-10 hours to pollinate open flowers. If they have not been fertilized by afternoon they fall off.
- Hand pollination is now used for all commercially produced vanilla, and even in Mexico, is labor intensive.
- Only five or six flowers per cluster are allowed to develop into pods which become the vanilla beans. These pods will grow to 8-14 inches long and look like a cluster of fresh green beans.
- Vanilla seeds will not germinate without the presence of specific mycorrhizal fungi.
- Growers reproduce the plants by cutting sections of the vine with six or more leaf nodes, small rootlets are opposite each leaf.
- Two of the lower leaves are removed and this area is buried in soil with a support pole for the vine to cling to. It takes 3-6 years to grow flowering vines.
- Vines need 50% shade and is very important factor to successful flowering
- Soil should be loose with high organic matter and loamy texture and well drained.
- Beans are harvested in autumn; vines should produce between 50 – 100 beans per year.
- Vines remain productive for 12-14 years but can live to over 100 years.

Harvest

- The fruit grows to full size in 6 weeks though it must be left on the plant for about 10-months to fully mature.
- Once green pods are gathered they must be cured in a multi-step process.

Step 1: Is to ‘murder’ the pods by heating in ovens or scalding them Heating ends the active growth of the pod and releases the essential oils.

Step 2: Pods are laid out in the hot tropical sun to dry roast naturally.

Step 3: Pods are gathered at end of the day they are wrapped in thick blankets and brought into the buildings to *Sweat* for several days.

Step 4: Repeat Step 2 & 3 for weeks properly cured beans must go through at least Two Dozen slow sweats.

Step 5: Beans are stored to age for an additional 30-90 days to make sure they are properly cured. Beans must be checked regularly for mold.

Step 6: Three months from harvest the cured pod is reduced to 1/5 the original weight. Well-cured beans are soft, should be able to tie a bean without cracking or breaking it.

- When ripe and cured properly the phenolic compounds crystallize giving the beans a glittering appearance.
- The fruit seed are tiny and flavorless, black seeds that are very recognizable.

Types of Vanilla – 40 different Vanilla Cultivars exist – 3 Are Valuable

- **Bourbon Madagascar vanilla** is from *V. planifolia* plants introduced from Central America. Term is used for vanilla from the Indian Ocean region of islands such as Madagascar, Comoros and Reunion. Madagascar is smooth and rich, and considered to be 1st in quality. Reunion is sweeter and slightly spicy
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- **Mexican vanilla** produced from native *V. planifolia*. Now produces much less quantity approx. 2%. It is one of the most prized and has a spicy note that is absent on other varieties. Cheap vanilla sold in Mexican markets is an extract of the tonka bean, which contains coumarin banned by US Food & Drug Administration
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- **Tahitian vanilla** from French Polynesia is from the *V. tahitiensis*. Is the only commercially available variety of vanilla. A genetic analysis shows that this species is a hybrid cross of *V. planifolia* and *V. odorata*. It is different chemically it contains less vanillin and more heliotropin. Visually the pods are fatter with thicker skins. It is more flowery aroma and noticeably musky note, and a somewhat lower seed count.
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- **West Indian vanilla** is from *V. pompona* grown in the Caribbean, Central & South America. The plant grows quickly it has low levels of vanillin, and weak flavor it is not commercially farmed.
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- **French vanilla** is not a type of vanilla but is used to designate strong vanilla aroma, designates a style of preparation in cuisine which may contain black vanilla seeds.

Vanilla Imitations

- High cost of cured beans & advances in laboratory science permit scientist the opportunity to synthesize vanillin.
- Unfortunately vanillin only accounts for about 30% of the perceptible flavor of the bean.
- There are 249 other flavor compounds in a cured vanilla pod
- Most imitation is made from wood & is lignin vanilla. A byproduct of paper mills.
- Lignin vanilla is made from the pulp of coniferous trees.
- The sulfite solution that results from the pulp cleaning process is run through multiple chemical extractions to purify the lignin known in the trade as 'USP' (United States Pharmacopoeia) or lignin vanilla
- Another imitation Ethyl Vanilla is much stronger than lignin and is made from guaiacol, which is a coal tar derivative!

Baldwin Vanilla Established 1888 – West Stockbridge Massachusetts

Charles H. Baldwin & Sons may very well be the oldest manufactures of vanilla extract in the United States. Charles and his father began brewing & peddling extracts 122 years ago.

In 1912 the business moved to its present location, a former carriage shop in the village of W. Stockbridge. The store remains unchanged today with tried and true items still available, wooden yo-yos, jacks, compasses and slide rules as well as a wide variety of spices & baking supplies.

Baldwin's Pure Vanilla Extract uses only the best; most flavorful and expensive variety of bean - the Bourbon Vanilla Bean - from Madagascar.

Baldwin's Vanilla Extract has been made in the same solid copper percolator, 25 gallons at a time, for over 65 years. This electronically heated copper cylindrical *still* is used to percolate the Madagascar vanilla beans, ethyl alcohol and water for 10 days. This extraction process is the original used by Henry & Charles Baldwin when they began making vanilla.

The vanilla is aged between one to three months in 100 year old oak barrels which mellows & intensifies the extract resulting in a darker, richer final product. These barrels are invaluable to the flavor development process. The vanilla is noticeably thicker, has a deep amber color and nutty aroma from sitting in the barrels. Aging the vanilla by this method produces small batches that cannot be duplicated by industrial mass producers.

Used by serious bakers and chefs who desire superior ingredients for their creations, a little quality vanilla from Baldwin & Sons produces magical results, –“ Believe me!” - (Tina).

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MEMBERSHIP LIST SHOULD BE IN THE NEWSLETTER ~ FIND YOUR FRIENDS, keep in touch!

ARTICLES, IDEAS, HUMOR, STORIES always welcome to these pages .TG

Motto: Orchids GROW **Wild** Where CAIOS Reigns!



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