



Orchid Society of Santa Barbara

Meeting: Wednesday, June 8, 2005

MacKenzie Adult Building

at MacKenzie Park

3111 State Street (at Las Positas)

enter parking lot on Las Positas

Meeting begins at 7:30 pm

Culture Corner begins at 7 pm

PROGRAM

Fred Clarke of Sunset Valley Orchids will speak about
Cycnoches, Mormodes and Catasetums

Come hear about these fascinating tropical orchids, many of which have separate male and female flowers, from arguably the best grower of these genera in the country. A *Cycnoches* and a *Catasetum* recently earned Fred Clarke of Sunset Valley Orchids not one but two prestigious AOS special awards: the Merritt W. Huntington Award for the most outstanding FCC of 2003 and the Ann and Phil Jesup Botanical Trophy for 2003. (Check out the cover of the February 2005 *Orchids* for a photo of the latter.) Clarke, who also grows superlative paphs and catts, will be providing the raffle table

Culture Corner -- Come early to hear our own Jeff Thompson talk about the importance of light for your orchids. Jeff will have example plants to discuss and will answer questions about how to recognize too much or too little light.

CALENDAR OF UPCOMING EVENTS

July 8-10, 2005

Santa Barbara Orchid Estate International Orchid Fair -- Grand Anniversary!

Friday and Saturday 9 am - 5 pm. Sunday 10 am - 4 pm. Free admission; parking \$5. Earl Warren Showgrounds, Santa Barbara. www.orchidfair.com Santa Barbara Orchid Estate and Cal-Orchid will have open houses during the fair.

August 14, 2004

Annual OSSB Picnic

At the Santa Barbara Orchid Estate. This year's event will be a potluck. See future newsletters for details.

Summary of the May 2005 Meeting

- **President Phil Watt** welcomed guests and visitors.
- **Refreshment Chair Needed.** President Watt called for a volunteer to take over the job of refreshment chair. Our treasurer, Angela Watt, was refreshment chair before she assumed the duties of treasurer, and now needs someone to replace her as refreshment chair. Please call Phil and Angela (967-7565) if you are interested in the position.

Program

OSSB member Randall Umland introduced our May speaker, Jim Rowley. Rowley spoke to us about growing orchids using hydroponic methods.

Rowley uses a single pot passive system for all his orchids and displayed several very happy plants that have been in their pots for four or five years. Traditional hydroponics have plants growing in shared reservoirs of water. Given virus concerns with orchids, Rowley and others have adapted hydroponic principles to give each orchid its own reservoir.

Plants are placed in tall pots with no holes in the bottom. Holes about an inch from the bottom prevent roots from being forced to sit in water, but give an inch reservoir of water. The drainage holes also make it impossible to overwater. Rowley commented that his method is very convenient if one wants to go on vacation. Plants will water themselves for a short vacation and are easy to water for plant sitters during a longer vacation.

The medium in the pots is a horticultural grade fired clay that has been hardened and expanded at 2400 C. The clay has excellent capillary action so that water in the reservoir will seep upward through the clay. It also has very good air exchange, which orchid roots prefer. Unlike bark, it never breaks down. Rowley noted that construction grade fired clay is too muddy. Also, the horticultural clay he prefers is irregular in shape, which makes a more stable medium for orchid roots than round balls.

Since the clay never breaks down, Rowley does use reverse osmosis water to avoid contaminating the medium with excess salts. He

found he was using a frugal 3 gallons for 200 orchids watered once a week. Every time he waters, Rowley adds quarter strength fertilizer. He uses the Michigan State University formula, which is a complete fertilizer with micronutrients. Three times a year, he flushes his pots with regular city water to leach out any salts that have accumulated from the fertilizer.

When orchids are planted in bark, the new roots that grow are acclimatized to relatively dry conditions. As the bark degrades, the roots are subjected to wetter conditions and eventually rot. Since fired clay provides consistent moisture, Rowley has found that his roots last much longer than they did in bark. When he moves a plant into a hydroponic pot, he often trims the roots -- sometimes half or more on cymbidiums -- so that there are fewer old roots to rot in the new conditions. Then he will apply a drop of Superthrive for the rooting hormone and withhold fertilizer until he sees good root growth. Rowley noted that it is best to repot when roots are just beginning active growth; paphs in particular will sulk if repotted at the wrong time.

Once in fired clay and a hydroponic pot, orchids need repotting only when they outgrow their current pot. Then they can be potted up, old medium and all, into a larger hydroponic pot. Rowley finds he has no need to underpot, which allows him to pot his plants in larger pots with several years of room to grow. He keeps a 5 gallon bucket of soaking clay handy for potting; this allows him to use prewetted medium.

Many orchids do very well with this method of growing. Rowley has had success with members of the following groups: warm growing, Australian and nobile dendrobiums; oncidiums; odontoglossums; paphiopedilums; phragmipediums; cattleyas. He pots zygopetalums a little high in the pots because their new growths tend to rot if wet. However, some genera should not be grown hydroponically. Rowley would not recommend toolumnias (formerly equitant oncidiums) or vandas. Additionally, orchids with pendant spikes such as stanhopeas are inappropriate for this method of growing.

A Report on the 2004 Orchid Digest Speaker's Day Or More Methods of Growing Orchids

Ask most orchid growers today and they will agree that quality fir bark is hard to find. But what else is a hapless grower to use? Before the introduction of fir bark as the preferred growing medium, orchids often were grown in tree fern or sphagnum moss. Tree fern, being endangered itself, is often hard to find and always expensive. But a few growers, as we have heard in the past year, are revisiting sphagnum as a medium of choice for orchids.

Sphagnum isn't the only alternative to fir bark. Some growers swear by (well rinsed!) coconut husk, either in the form of chips or as a peatlike coir. Others are experimenting with diatomaceous rock. Our May speaker taught us about the advantages of hydroponics. And there are, of course, additives to fir bark intended to extend its life: perlite, volcanic rock, sharp sand, etc.

If you are like me, you are confused. Bark isn't working so well. But what to use instead that isn't going to cost an arm and a leg?

I do not have an answer for you. I can, however, report on the growing media favored by speakers at the 2004 Orchid Digest Speakers Day.

The first speakers were Fred Clarke (our June speaker) and Ramona Wilson. Both are recognized as good growers. Both use Diatomite.

This material is fresh water diatomaceous rock that has been heated to calcify and harden it. It is pH neutral. It absorbs greater than its weight in water and does so immediately, rather than floating like bark can. Said Clarke, "It's about the closest thing to artificial bark that you could have." Wilson, whose property burned in the Cedar Fire, said the Diatomite was the only thing that didn't burn.

Bark is variable over time. Coconut and peat are very wet. Diatomite maintains porosity of the mix. It does not decay or compress. Roots do not adhere readily to it, so plants are easy to repot without much root damage.

While the original hope was to use straight diatomite, which Clarke does in his personal collection, many growers blend it with some

organic material. Wilson and Clarke recommended two parts diatomite to one part bark, coconut, or pH adjusted peat moss (Promix #1 or Sunshine Mix #4). For those living near the coast, they recommended reducing the organic content.

Putting organic matter in the mix allows for three things. It gives pH buffering. It actively supports microbial activity beneficial to orchids. And it provides ion exchange support; organics loosely hold fertilizer ions, making them more available to orchid roots. But old bark, peat moss and coconut can stay damagingly wet for orchids; Diatomite will wick moisture from the organic material, giving a more even moisture level in the mix. However, if the mix dries completely, it is possible that the Diatomite will wick moisture from the plant roots.

Wilson reported that three years of controlled nursery experiments in Hawaii showed Diatomite, perlite, and peat to be a mix in which orchids grew better and faster. To avoid overwatering and a too-wet mix, plants should not be overpotted. Additionally, if one is using city water, one must leach well, as with any other medium. On the positive side, diatomaceous rock provides good evaporative cooling for the roots on hot days and does not decay like fir bark.

Diatomite is not as cheap as bark. It can be reused if baked at 300°F, though this is not practical if one mixes the Diatomite with other media. Many growers add some #4 perlite to extend the Diatomite. However, since the material is inorganic, it is not crucial to clean every bit of mix off when repotting.

Perhaps most useful was Clarke's comment that 80% of one's success with a medium comes from how one waters. The challenge of any mix is to provide some drying between waterings and to maintain consistency for as long as possible.

Want to learn more about Diatomite? Several orchid society members are using it, so ask around. Want instead to hear more about sphagnum moss? Alan Koch and George Vazquez both gave talks on the subject at the OD Speakers Day; I'll report on those next.

Announcements

- **Refreshment Chair Urgently Needed!** OSSB is looking for someone to assume the position of Refreshment Chair. Now that Angela Watt is our treasurer, she is no longer able to fulfill the additional duties of Refreshment Chair. Our new Refreshment Chair should be a member who comes regularly to meetings. The Refreshment Chair is responsible for bringing the OSSB-supplied coffee and tea makings to each meeting. He or she is also responsible for reminding folks who signed up to bring refreshments. Each month, the Refreshment Chair will receive a free ticket to the name tag raffle (the raffle for the first plant on the raffle table); this ticket is in addition to the ticket he or she would receive for wearing a name tag. Please consider volunteering for this position; otherwise, the June meeting will be our last with coffee and tea at the refreshment table. Call Angela Watt (967-7565) for details.
- **It Is Your Turn to Provide Refreshments!** OSSB is very grateful to a rather small group of members who regularly volunteer to provide refreshments. Haven't volunteered lately? Instead of just eating those cookies, how about bringing some? Many thanks to Angela Watt, who provided the May refreshments when no one else signed up. And many thanks to Janet Gripp, who signed up for June when no one else had done so. If you provide refreshments, you will be entitled to a blue name tag raffle ticket.

- Congratulations to the May show table winners: 1st-Josh Davis for his *Encyclia citrina*; 2nd-Bryan Davis for his *Psychopsis* Mendenhall 'Monarch'; 3rd - a four way tie! Frank Methmann for *Onc. (Tolumnia)* Kitty Crocker 'Rose Giant' AM/AOS and for *Sarco. hartmannii* and Bryan Davis for *Sygmorchis puchella* and for *Psychopsis paleolyminii*. Bring in your flowering plants; maybe you'll win the show table vote!
- Check out our web site! www.west.net/~orchidsb
- OSSB Officers for 2005: President - Phil Watt Vice President - Don Brown
 Treasurer - Angela Watt Secretary - Heidi Kirkpatrick