Dahlia Society of California
July, 2009

e - NEWSLETTER

NEXT MEETING: July 14, 2009 at 7:30 PM on 9th Ave and Lincoln Ave. Program: An Ikebana specialist will explain the principles underlying this ancient art of flower arranging. A disbudding, pinching out, deleafing and deadheading clinic will take place at the Dahlia Dell at 6:30 PM with Deborah. There will be growing guides, Dahlias of Today, and the ADS Classification Guide on sale.

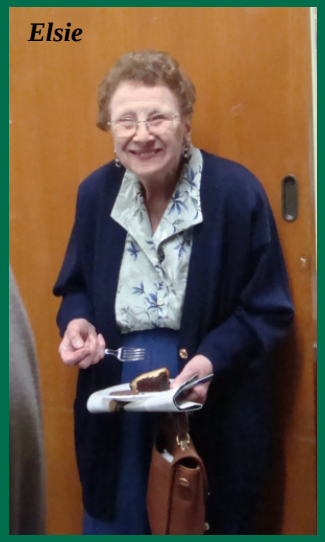
DAHLIA GENETICS: WHENCE AND WHITHER?

Since Franck has been auditing Dr. Virginia Walbot's plant genetics classes at Stanford he prevailed upon her to conduct an intense seminar in Plant genetics 101. Having published extensively on corn, Dr. Walbot described the "custom" corn color patterns that various Indian communities and tribes in Mexico have developed to distinguish their local corn any others. Corn and dahlias produce anthocyanin, a necessary element for color production developed @400 million years ago. Anthocyanin helps plants in 4 ways: it affords UV protection by absorbing harmful wavelengths like a sunscreen; anthocyanin acts as pollinator attraction, appearing black in Ultra Violet; as an antibiotic, it deters fungal and bacterial invaders; and as an herbivore deterrent producing a bitter taste. Color happens in ten irreversible steps; if the process gets held up at any of the 10 steps, different color results. Evolutionarily, orange developed first, then red, purple and very late in the plant dating game blue. True blue delphinidin needs 6 hydroxyl groups; dahlias have only developed 5 (so far). Anthcyanin is synthesized in the cell's cytoplasm which has a neutral PH; but the pigment reaches full coloration in the cell's vacuole, a bit like the cell's 3.5 acidic garbage dump which is the ultimate tenth step. All dahlias that are bright yellow are "broken" at step 2; breaks at steps 2-7 result in white flowers; beige and bronze come at breaks at steps 8 and 9 respectively. At step 10, stable

Genetics continued

color gets pumped into the vacuole. Dr. Walbot described experiments done with aluminum foil wrapped in a band around dahlia stems producing a band which does not go away with further exposure to light proving that the route of anthocyanin into the vacuole is non-reversible. In another experiment using aluminum foil on just opening Jessica buds, Dr. Walbot proved that light stimulates pigment just at Jessica's red tips; the tips are only sensitive to light for 1-2 critical days. By covering the opening bud of a Rock Run James, Walbot's students produced a yellow dahlia with wee red edges on the petals instead of bright red petals with a hint of yellow at the center. Many in the audience were rapidly concocting " home experiments" to produce crazy People's Choice candidates by means of strategic placing and timing of aluminum foil. Who knew that each dahlia cultivar has its own specific odor? Most human noses cannot discern this singularly identifying smell. Dr. Walbot's students trained a dog to distinguish cultivars by rewarding correct identification with yummy treats. Besides being octoploid, dahlias also make more transposons, pieces of gene that move from place to place upon an allele-- one reason dahlias manifest such diversity. Dr. Walbot concluded her lecture, laying out her dream for The Dahlia Genome Project. Presently getting the entire genome of a specific cultivar might take up to a year and $20,000. However, science is making such rapid strides in this arena, that the price continues to come down and the sequencing time shortens. She exhorts us, "Beat the orchid and rose people!"

GENEROSITY OF FRIENDS: Thanks to the Dingwalls for their Chocolate and Vanilla Bundt cake and to Devora for the yummy brownies. Leo not only stayed to help the Dingwalls clean up but also brought Chip Ahoy cookies. DJ made lemon bars from his own lemons. As always, Pat brought English biscuits and Petit Ecoulier cookies. Baker Bill outdid himself with lemon cream pie, razzel berry pie and Tampica juice. Alas, Peg brought exquisite Petite Fours trussed up like little taste presents—so scrumptiously tempting! Thanks to Devora, Frank, Lou and Deborah for bringing plants for sale.



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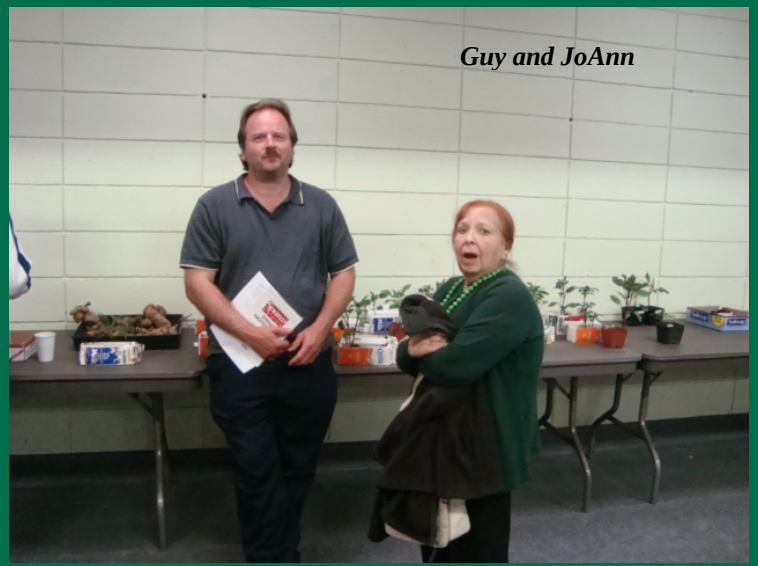

Guy and JoAnn

Lou, Guy, Martha and Kevin

FIRST BLOOMS: Peg reports that her first bloom made her So Happy. Nothing to Pooh Pooh about in Franck and Barbara's garden, either. Deborah arranged her first color coordinated bouquet with Wildwood Marie and Shea's Rainbow with Alstroemeria rampant.

DAHLIA DELL DOINGS: Up on the Hillside, Tinnee could have won Best x3 waterlillies with her beautiful Fern Irenes. Devora, Pat, Kathy and Sue planted a few more in the teardrop. To foil gobbling gophers, Frank and David used cages around their dahlias. Guy brought Deborah and Tinnee two boxes of darling lady bugs to hunt out aphids—such a green solution! Pat labeled dahlias.

Peripatetic Dahlianisto, Allen Haas, flew in for breakfast and a tour of the Maus Haus and Deborah's Secret Garden.

JUDGING SEMINAR: Mark your calendars: August 8, 9-5ish. Church of Christ, 601 MacArthur Boulevard, San Leandro, 94541. Whether you want to actually judge dahlia shows or not, take this great opportunity to learn more about dahlia aesthetics. You will be able to appreciate your own dahlias and those of others better. What are breeders striving for? You will meet and mingle with major Bay Area bloomerati and learn some of their winning secrets. Please call John Morton 510 276 0530 to register for this FREE opportunity to learn A LOT more about our favorite flower. Call some of your fellow DSCers and car pool.

HANDS ON DAHLIA SEMINAR: ”We learned to have no fear. To be brave and pinch out the centers and snap off the disbuds, “ reported Kathy after her practicum in the Dahlia Dell with Deborah. Barbara, growing two dozen plants, distinguished the main bud, the two leaf pairs and “pulled their ears over their heads” to determine how far down to new growth to pluck out the center mass. Pinching out forces the energy of the new plant back into the the next set of blooms and stems for a heartier bush. Lee deadheaded below the pair of leaves “down to new growth” and photographed the whole lesson. Kathy went on to teach the techniques during the Saturday volunteer session. Learn one, do one, teach one—well done!

Jolly July: Celebrate your first blooms! Disbud the extra buds leaving just one flower per set of leaves. Deadhead below this pair of leaves down to new growth. Check the underside of the leaves as you throw them out: are there eggs? Catterpillers? Aphids? Spots? Use this opportunity to check in with the overall health of your patch. In my Secret Garden I have begun adding Monterey Fungi Fighter to my spray cocktail of insecticide, fungicide and water soluable fertillizer. The systemic fungicides and insecticides are absorbed by the whole plant through the leaves and seem to last longer than the topical ones. I have received several questions about earwigs. Snail and slugbait is NOT enough. You need something that specifically says it will DESTROY AND KILL voracious earwigs such as Buggetta PLUS or Super Sluggo. Make sure you have removed any dropped petals or leaves around the bottom of your plants as this is where earwigs hide during the day time. With a greener and less pandemic ploy, my mother likes to set out rolled wet newspapers in the evening and in the morning gleefully dump the hiding earwigs into a container of water and throw them all out. Other readers railed against gophers. Yes, they are awful! Down in Corralitos, Tinnee traps one, two or even three a day sometimes. Macabee or cinch traps inserted into the gopher run yield a lot of deadly payback satisfaction. More proactively, you can plant in metal cages. Allen Haas uses metal buckets. The downside of this is that sometimes the tuber clump grows outside the metal mesh and is hard to extricate in the winter. Franck planted his dahlias in sunken pots. Besides looking quite stylish, they are simple to tip out for harvest. Mike and Martha grow 300+ dahlias in milkcartons above ground, avoiding two problems—clay soil and gophers—with one solution. A good “mouser” kitty will discourage gopher families, too. Adding plastic ground cover keeps down the weeds and keeps the water in the soil by decreasing the evaporation.

Franck and Barbara's Pots

Roger and Marilyn's protective pots and ground sheets

Yours in Dirt,

Deborah

Editor: Deborah Dietz

Webmaster: Mike Willmarth

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