The Bulletin

EPIPHYLLUM SOCIETY OF AMERICA

SUMMER 2016 • VOL 71 · NO. 4

PHOTOGRAPH: Paul Richter
Best Photo Winner – ESA Show

'KIWI TREASURE BOX'

Hybridizer Yvonne & Andrew Brunton Reg. #13563

'Elegans Lei' × 'Elinor Victoria Latimer'

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PURPOSE STATEMENT SUMMARY: The Epiphyllum Society of America was organized to: register and establish epithets and diagnostic descriptions of epiphytic cactus hybrids of the Tribe Hylocereeae, and publish the International Register (The Registry of Hybrids and Species), and periodic updates in accordance with the International Code of Nomenclature, fulfill the duties of International Registration Authority, publish a newsletter, promote interest in epiphytic cacti hybrids, species, and related genera, conduct programs of interest to members; facilitate communication among members; and sponsor annual Flower Shows.

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FOR INQUIRIES Send them to the ESA Address above or email them to genevacoats@aol.com.

ROSTER CHANGES or other membership issues send them to the Membership Secretary.

MEETINGS: Begin at 7:30 p.m., the first Tuesday of each month, (except January, December and US national holidays). Admission and parking are free. Refreshments are served. Members and guests attending their first meeting receive a free potted epi. Regular meetings are held in the Lecture Hall B, Arboretum of Los Angeles County, 301 North Baldwin Avenue, Arcadia, CA, USA. Take the Foothill Freeway (I-210) to the Baldwin Ave. exit, south. Follow the signs to the Arboretum. The December meeting is the Holiday Banquet. Paid dinner reservations are required.

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EXECUTIVE BOARD MEETINGS are open to all. The Board currently meets monthly, on the last Tuesday of the month at 7:30 P.M. Meetings are held either in the Bamboo Room, Arboretum of Los Angeles County, 301 North Baldwin Avenue, Arcadia, CA; or via a teleconference call. Please contact one of the Board Members before attending.

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'Wowi's Nebelhorn' *hybridizer Wolfgang Wilborn,*
'George P. Burdell' *hybridizer Paul Richter.*

Summer Culture Calendar

by Keith Ballard

Summer is the traditional season to repot, fertilize and/or prune epies, all of which can have a beneficial effect on the plants. However, understand that there are epi growers that repot all year-round. What follows are suggested approaches that I know work, but like other approaches to epi culture, other procedures may work as well.

Repotting: We repot to encourage growth, which hopefully also encourages blooming. We also hope that larger plants produce more blooms. So, the general basic rule of when to repot is when the epi stops growing or stops blooming. However, in practice, the actual time to repot needs to be tailored to one's best guess at the exact condition of the given epi.

Pot Sizing: In growing epies, there are some pot size considerations. The pot needs to be sized to the size of the plant. Epies like to "feel" the sides of the pot to bloom well, so pick a small pot for a small epi and vice versa. In addition, a pot that is too large for an epi runs the risk of retaining too much water. This may cause root rot, or rot the below-ground part of the epi branch. As an additional note, mushy places on a branch are a sign of too much water. The standard routine that I follow for repotting (from a cutting to the largest size) is: a cutting starts in a 3 1/4 inch pot; in a year or two (or when it gets so large it starts to fall over) repot to a 6 inch pot; and finally, in another year or so, to an 8 1/2 inch pot. Because of my space limitations, the 8 1/2 inch pot is the maximum size I generally use. In addition, I routinely repot at five year intervals if a given epi does not need special consideration.

An epi in a pot that is too small will become root-bound and stop growing. I have seen cases where an epi was left too long in a given pot, and probably without proper fertilization, where the mix turns a sickly yellow color and the plant was not doing well at all. It's important to repot when you need to, but when "up potting" (or repotting to larger pot) don't be in too much of a hurry to go to a much larger-sized pot.

Step by Step: Before you take anything out of a pot, plan ahead, and be completely ready to repot. Letting exposed epi roots dry out while still preparing mix, is just as bad as letting a plant completely dry out.

You can create a clean work surface for the root ball by covering the work area with a stack of newspapers. When finished with one plant, lift off the top sheet or two with all the leftover debris and throw them away. You automatically have a clean and disease-free working surface for the next plant. If the sheets get wet for one reason or another, use just one or two sheets at a time.

Try to be as gentle as is practical when removing the root ball from the pot. A technique that works well, is to insert a metal or fiberglass rod at an angle through one of the pot's bottom drain holes and pry the ball out. If the pot has a hole in its side near the bottom, so much the better. You might consider drilling a hole near the bottom of your new pot before using it. I drill extra drain holes in the sides and bottom as a matter of course.

Assess the condition of the roots. This is the most important step of repotting. If they are firm and healthy, continue with the repot. If not, go to the section below on "Special Considerations."

If you are up-potting, preserve as much of the root ball as is practical, but loosen the roots on all sides as well as the bottom. If you leave the roots where they were circling the walls of the old pot, they may never grow out into the new mix and the epi will not grow. If you are replacing the mix and reusing the old pot, remove as much of the old mix with your fingers as you can. Some growers wash the roots to get rid of all the old mix.

At this point, I wash a pot that's going to be reused, including removing all the white mineral deposits. Stubborn deposits can be easily removed with a little plant acid (aka 0-10-10 liquid fertilizer) on a rag.

I start the refilling process by adding about an inch of rocks at the bottom of the pot, to improve drainage. On the top of the rocks I put a circular piece of window screen to keep the mix out of the rocks. The screen has enough open surface area so there is little danger of it plugging up and stopping water drainage. You should never put screen over any drain hole to keep mix from escaping the pot. Because of the small surface area across the drain hole, the screen can plug up and prevent drainage, resulting in root rot.

Fill the pot with new mix to the point that sets the plant at the original surface level or slightly deeper. Being deeper allows new areas to produce new roots. The new mix should be moist, but not wet. Fill in around the plant with new mix, but do not pack it. Slapping the sides of the pot will allow the mix to settle and fill any voids.

Wait ten days or so before starting to water, and at first, water sparingly.

My epies are watered automatically every week via a drip system. For newly repotted plants, I hand-water for four weekly intervals with a B1 Solution mixed with one tablespoon for each gallon of water.

My standard former mix (which I used for all potting) is two parts Coir (shredded coconut husk), two parts LGM potting mix, two parts Perlite (Size 3), one part mixed large and medium orchid bark and one cup azalea fertilizer per 5 gallons of mix. This is a very light mix. I live within a few miles of the ocean, and 90+ degree days are rare. You may have to reduce the percentage of Perlite and bark for a heavier mix to provide more water retention, depending upon your location.

Special Considerations: So much for the routine, what about special cases? To repeat, the primary question is: what is the condition of the roots? If you don't like the looks of a plant, or are suspicious about the condition of the roots (for example, say the epi bloomed alright, but shows no new growth or it bloomed little

and is not growing), it very well might be time to repot. You can first try a shot of fertilizer outside your normal schedule, but if the plant doesn't respond to that, it more than likely is time to repot. If the roots turn out to be plentiful and are firm, repot normally. If there are no roots, or what is there is soft and rotted, cut off the rotted material before repotting. Some growers dust major cut ends with sulfur to protect from disease, then repot with fresh mix. Keep the plant in a shady place, but do NOT start to water for four weeks. I then use the B1 mix for an additional four weeks.

After blooming heavily, an epi may look "tired" for a while, showing sunken areas. Epies do rest for a short time after blooming. However, if the condition persists, it may indicate the presence of root mealybugs. If you are concerned, water the plant with a Malathion solution (at one tablespoon per gallon of water). The epies don't seem to mind the solution. If you do repot and find root mealybugs (which look like little spots of white fluff), the same treatment applies. In this case, dip the roots in a Malathion solution at the above strength. The epies not only don't seem to "mind" this bath, in fact, they seem to "like" it, and it seems to improve growth. There are growers who routinely use this bath as part of their repotting procedures. Just be aware that some organic material's mildew presents as little white spots, and if there is only a spot or two, it probably is not mealybugs. Still, if you decide to do the Malathion bath it won't hurt, and it might even help.

Fertilizing: My normal fertilization schedule is as follows: starting on Groundhog Day (February 2nd) use 0-10-10, and every six weeks thereafter, until the flowers are gone or the first of June, whichever comes first. Then use fertilizer containing some nitrogen around the first of June and the first of September.

One year for my June and September applications I used a "Designer Fertilizer" with a makeup of 7.5-22-10, then the 0-10-10 as usual. As a test, one group also got the 7.5-22-10 for the first application of the year rather than the 0-10-10. Because of this extra Designer Fertilizer used in February, I think that generally the flowers that year were bigger and there were more of them.

Was it the fertilizer or just the weather? I will try to figure that out. The average number of blooms this year was 5.1 blooms per blooming plant for the overall garden. The average for the group that got the first application of 7.5-22-10 was 5.6 per blooming plant. The sample was statistically too small to draw any hard conclusions, but it indicates a much larger study is in order.

Pruning Proper pruning of an epi can have significant benefits. It makes little sense to make an epi plant continue to nurture a branch that has few live areoles. Flowers all come from the areoles, and removing a nearly useless branch encourages new branch growth with many new areoles and flower possibilities. Dr. Kohlschreiber states the general pruning rules best:

Prune any branch that offends you, up to half of the plant.

When repotting, prune at least the longest branch.

José Salcedo

Highlights of Recent Meetings

HIGHLIGHTS OF THE APRIL 5th MEETING. ESA member and Ikebana master instructor, José Salcedo, was our primary guest lecturer for April. The popular guest again amazed us with his demonstration of floral arranging in order to get us ready to participate in this category in our Flower Show on May 15th. José is a member of the Ikebana Society of Los Angeles. José is a software designer by profession, but his avocation is Ikebana instruction and floral arrangement.

Ikebana (生け花, "living flowers") is the Japanese art of flower arrangement, also known as kadō (華道, the "way of flowers"). There are a number of schools of Ikebana with fixed rules of design, which do allow for various levels of expertise of the arrangement designer. For us, José concentrated on creating beautiful displays rather than emphasizing the rules. He did note that his demonstration arrangements had a inclined main stem, and he demonstrated a number of ways to anchor the stem to hold its position. He also stated how important it is to balance the arrangement.

He then created, on the spot, a number of beautiful arrangements, starting with a "Beginners Arrangement" and went on to create other arrangements with increasing complexity.

HIGHLIGHTS OF THE MAY 3rd MEETING. This meeting consisted of two parts: Annual Show Preparation and the first of a new series conceived by Jim Nones entitled, "Members' Gardens". The Members' Gardens presentations are not limited to only your epies, but can include whatever else you are growing in your garden and can be from ten minutes to one hour long.

President Kuettle gave an overview of what to expect at our upcoming Annual Show. He noted that the Show Rules are the same as last year's rules. There were copies available, and he recommended that we all read them. Because of this year's weather, the number of flowers was expected to be down.

In order to try to increase the amount of flowers that could be brought to the show in what was expected to be a down year, Keith Ballard gave a quick oral description of Galen Pittman's method for extending the life of epi blooms. This description included the following instructions: Into a small sealable box, such as a shoe box, place a water-saturated bath towel. Put the "to be preserved" epi bloom in a coffee filter, a #6 is ideal, and place the bloom in the box with the filter touching the towel. Add more epies if desired, but their coffee filters must touch the towel and become saturated. Put the box cover on the box and put the closed box into a frost-free refrigerator. Avoid opening the box until bloom placement at the show. Galen felt that this method could often preserve flowers for as long as a week. However, you must understand that the preserved flowers, once removed from the box, will only last around a half day, but that should be long enough for them to be judged in the show.

Paul Richter

For the rest of the meeting, Paul Richter gave a really wonderful first presentation of Members' Gardens. First, Paul showed a video presentation of some samples of registered epi blooms from his garden. These were followed by some of his own originations. This was followed by pictures of a number of rare fruits that he is growing, including some dragon fruit. Finally, he really "wowed" us with pictures of his growing and releasing Monarch butterflies. Paul has planted milkweed in his garden (which is the only host plant for Monarch caterpillars), to attract the butterflies. He has also made an enclosure to protect them during the various stages of their development. Monarch females lay one egg at a time on the underside of a milkweed leaf, then Monarchs go through four distinct stages in their development: egg, larvae or caterpillar (in which they molt 5 times, getting larger and more colorful each time), chrysalis and finally adult. Paul said that his caterpillar-to-butterfly survival rate is 85%. The survival rate in the wild is well less than 10% and perhaps as low as 3%. Incidentally, milkweed and Monarchs are poisonous, which makes them distasteful to predators. Their bright orange coloration is a warning signal to predators not to eat them.

Paul Richter's Dragon Fruit Blooms

Paul Richter-Raised Monarch Butterfly

Paul Richter's Cherimoya Fruit

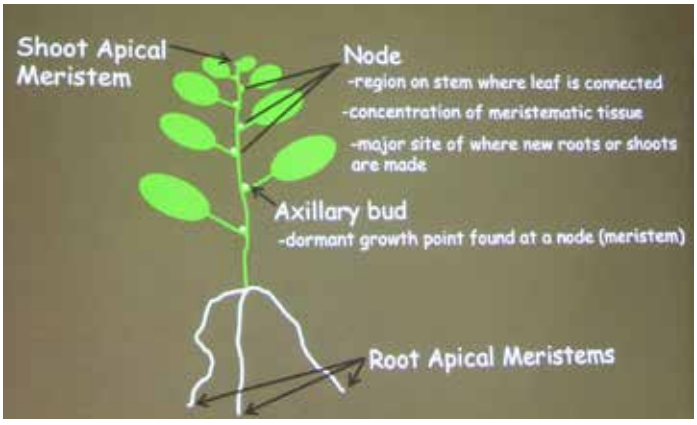
Ernesto Sandoval

HIGHLIGHTS OF THE JUNE 7th MEETING: This meeting was also in two parts: First, was The 2016 Annual Show Awards Ceremony, which was followed by a very informative presentation by the Collection Manager for the UC Davis Botanical Conservatory, Ernesto Sandoval, on Plant Hormones for Pruning and Propagating Epiphyllums.

A picture of the awards and awardees is included in this Bulletin. Also, a listing of who-won- what can be found in the article, "56th Annual ESA Show Results."

First, we needed a couple of definitions in order to understand Ernesto's presentation: A "plant hormone" is a natural chemical that, for this situation, controls the growth of the stems or roots of a plant. A "meristem" is a formative plant tissue usually made up of small cells capable of dividing indefinitely and giving rise to similar cells or to cells that differentiate to produce the definitive tissues, such as stems and roots. In the epiphyllum world we call the meristems "areoles."

Looking at Ernesto's included sketch of meristem locations may help with understanding the rest of his presentation. On the sketch; if you take away the leaves; but leave the meristems where they are and fatten-up the stem, you would have a sketch of an epiphyllum.



Ernesto's drawing of meristem locations

The Major Hormones and their productions, functions, effects or synthetic forms

Auxins

1. Produced at active/ growing shoot meristems and young leaves
2. Travel toward the roots by gravity
3. Move in sugar transport tissue (phloem)
4. Inhibit axillary bud growth
5. Promote root growth at low concentrations
6. Synthetic forms: IBA, NAA, IAA &??

Ethylene

1. Promotes ripening cell maturation & death
2. Produced in leaves that use more Sugar than they produce

Cytokinins

1. Produced at active growing Root meristems
2. Travel toward shoots & leaves
3. Move in water transport tissue (xylem)
4. Promote axillary bud growth
5. Keiki paste, Cytokinin in lanolin

Giberellins

1. Produced throughout the plant
2. Broken down by sunlight
3. Promotes cell elongation (stretching)
4. Promotes seed germination
5. Produced in
   a. Bonzi (Poclobutrazol)
   b. Inhibits GA Synthesis

Of this listing, the most interesting for us is Auxins (#5) and Cytokinins (#4), specifically as relates to the effects on plant stem or root growth. The impact of Auxins (#5) is that if the plant stem is cut, or the Shoot Apical Meristem (of the sketch) is otherwise lost, the Auxin concentration drops and root growth is stimulated. Likewise, if enough roots are cut or broken and enough Root Apical Meristems are lost, branch growth is stimulated. Apparently our epies are a special case as branching growth is very common, and the plants do not require physical repotting to be stimulated to branch. The problem for us is that a simultaneous repot and trim may activate both the shoot and root growth control centers and it may be an extended time period before one of them takes control and growth starts. Ernesto's recommendation here is: don't do a heavy branch trimming when repotting. A better approach might be to repot and then trim later, when the new growth is underway.

I repot around 100 epies a year, and their recovery times vary widely. Recovery ranges from blooming shortly after repotting, to sulking for months and apparently doing nothing, just sitting there. During repotting, I automatically trim off branches with all dead areoles or branches that generally look "bad." Some of my plants lose up to 50% of their branches during this trimming. Maybe Ernesto's observation above is the explanation for the variation in my plants' recovery rates, and maybe there is only a certain amount of trimming that a given epi can tolerate. This threshold may be hard to find, as the amount of damage to the root ball is hard to judge, but I'll keep Ernesto's advice in mind in the future

EPICON XV REPORT

by Keith Ballard

EPICON XV was held on May 28, 2016 at the South Coast Botanic Garden in Rancho Palos Verdes, California, and was hosted by the South Bay Epiphyllum Society (SBES). This is a short report of what transpired.

The day began with registration and a continental breakfast.

Report of the Societies: Status reports were given by the respective presidents of the Southern California Epi Societies. President Janice Wakefield reported for the San Diego Epi Society (SDES). The Society is celebrating its 45th year this year. They are presently planting 1000 cuttings, and have obtained a number of donated collections from members that have passed or are no longer able to care for them. Membership is in the 280 to 290 range. They have a new digital newsletter and the website is up again.

President Tony Yanko reported for the South Bay Epi Society (SBES), which was founded in June 1986. They also have a new digital newsletter. This year's annual Sale and Show was successful, and they had a lot of epi plants and cuttings on offer at their sale.

President Robert Kuettle reported for the Epiphyllum Society of America (ESA) and noted that the ESA, which was founded in 1940, currently has around 240 members. The summer issue of the ESA's quarterly Bulletin (which is also delivered digitally to most members) is almost ready to send out. The current update to the "Registry of Hybrids and Species" and the Registry itself are available for purchase. We are integrating Galen Pittman's epi collection into the Society's Collection, called the Pentico Memorial Collection, and we are almost out of room at the Pentico.

A special report was included here by Dr. Rudi Dorsch for the German Epiphytic Society (EPIG). Rudi had attended an EPIG meeting in Heidelberg, Germany, which had toured the Botanical Gardens there. He then also visited Dr. Ralf Bauer's home.

A huge specimen of Ercaceae Ceratostema Rauhii Luteyn Peru Type Plant

A Scene in the Heidelberg Botanic Garden

Entrance Gate to Heidelberg Botanic Garden

Dr. Rudi Dorsch Relaxing in Germany

Pitahaya/Dragon Fruit: Edgar Valdivia, who was one of the pioneers of dragon fruit's introduction, gave this presentation. Edgar told us that when he retired as an engineer, he wanted to

Edgar Valdivia holding a Dragon Fruit

do something significant, and felt dragon fruit development was it. There were originally five growers. Now there are many hundreds all over the world. The French took the plant to Vietnam to lower the cost of hand work in production. There were originally six species, one each from the countries of origin, but there are now eight. The Species are (from Edgar's chart): *Hylocereus Undatus* (USA) – white flesh; *H. vietnamese* – white flesh – self fertile; *H. polyrhizus* (Nicaragua) – red flesh; *H. Gutatemalensis* – pink flesh; *Mexicana* (Grullo) – red flesh; *H. megalanthus* – yellow, red flesh; 'Frankie's Red' – pinkish orange skin, pink flesh and *H. peruvianus* – white flesh (Columnar).

Dragon Fruit Pollination

Growing pitahaya/dragon fruit is easy. You will need the following conditions: warm climate, some humidity, shade and rich soil. Edgar thinks that San Diego is an ideal place to grow them. It only requires some hand fertilization (with pollen) and maybe some grafting. Edgar feels that hybridization is the best way to improve the fruit. The hybridization steps are as follows. (1) Start with mature species plants and cross them. Also see Walter's chart herein entitled "Pitahaya, Dragon Fruit Flower" for more information on the process. (2) When the resulting fruit is ready, don't eat it! Collect its seeds. There will be a lot of them. Waiting a second year may improve the results. (3) Plant the resulting seeds. (4) Wait four years for your new hybrid plants to fruit, and try the resulting fruit. (5) Remember that taste is everything in dragon fruit. If you hybridize a delicious new dragon fruit, a new variety is born! Name the fruit and record the parents.

Young Dragon Fruit Plants

Dragon Fruit – Hylocereus undatus

Dragon fruit can be eaten fresh directly out of hand, dried, in fruit salad, in ice cream and made into wine.

Lunch: A very tasty catered buffet lunch was then provided for all in attendance.

Discovering the South Coast Botanic Garden: Laurel Woodley (A Trustee of the Garden) started her presentation by telling us the history of the South Coast Botanic Garden. In the early 1900's the Dicalite Company began mining diatomaceous earth at the future location of the garden.

Diatomaceous earth mine at the future site of the SCBG

Diatomaceous earth consists of fossilized remains of diatoms, a type of hard-shelled algae. It is used as a filtration aid, mild abrasive in products, including metal polishes and toothpaste, mechanical insecticide, absorbent for liquids, matting agent for coatings, reinforcing filler in plastics and rubber, anti-block in plastic films, porous support for chemical catalysts, cat litter, activator in blood-clotting studies, a stabilizing component of dynamite, and a thermal insulator.

By 1956 the deposits were almost gone and the mining operation left the site.

From 1957 to 1965 the area was used as a landfill for residential and commercial trash from the South Bay by the Los Angeles County Sanitation Department. During the dump's existence, a total of 1,150,000 vehicle loads brought in 3,500,000 tons of trash. That phase of the site's existence ended with the covering of the trash with soil.

In 1959, Frances Young, a district director of California Garden Clubs & Horticulture Societies, began to promote the landfill as a potential site for a future regional botanic garden. Her picture hangs in the hall where this EPICON was held.

SCBG Founder Frances Young

The Garden staff has always been relatively small, being only eight at the present, and much of the garden work has always been and is currently still being done by volunteers.

Rose Garden at the South Coast Botanic Garden

Another scene from the South Coast Botanic Garden

Rare Chilean Wine Palm – Jubaea chilensis

1961 saw the first plantings. There have been 40,000 donations of plants to the garden, including a large donation of trees and shrubs from the Los Angeles County Arboretum and Botanic Garden. A great deal of work has been accomplished in the planting of those and other trees and shrubs, and what was once a muddy depression on the site became a beautiful lake (which is currently waiting to be restored again). The Garden now covers 87 acres and has around 150,000 trees and plants.

There are, however, a couple of lingering problems in the Garden arising from the site's history as a landfill. Over time, the trash decomposes and shrinks, and as a result, the ground sinks. Then, pipes break and things fall over or are uncovered. In fact, there are buildings with buried concrete foundations that are now almost all above ground level, including concrete stairs that no longer touch the ground. The trash decomposition also produces some other less noticeable problems with heat generation and gas production methane, carbon dioxide and sulfur mix.

Another unrelated problem is that over time, the identification of many of the various trees and other plants have been lost. Trees are identified with a metal information plate nailed to the tree. Over time, growing tree bark has covered some plates and the identification information has been lost. For one reason or another, the ID plates of many other things have also disappeared. This problem is currently being tackled with volunteer teams that include a knowledgeable Botanist to re-identify things and the tree IDs are now being monitored and moved as necessary.

Pictures of recently registered Epi hybrids: Robert Kuettle, ESA President, gave a presentation of 2014 and 2015 epi hybrid registrations. (Part 1 of a 2 part photo article on the 2015 registrations begins on page 128).

Results of the Silent Auction: At about 4:00 p.m., it was announced that the silent auction was over and the attendees gathered their winning bids and paid for them.

Hybridizer Panel: The hybridizers who remained at this time gathered. They viewed a video of some of Derek Obayashi's and Evelyn Shiraki's new originations. Then there was a very brief question and answer session which was presided over by Don Burnett.

From left: Don Burnett, Jim Nones, Darryl Miyamoto, Paul Richter, Don Patterson, Barb Alvarez (in front) Derek Obayashi & Evelyn Shiraki (in front)

Epicon Silent Auction in Progress

ESA 57th Annual Show -Results

SPECIAL AWARDS:

Best Flower of Show
Galen Pittman Memorial Award:
'Turbo'- Evelyn Shiraki, sec. 7

Best Epipcactus XL Flower:
'Red Chrome'- Evelyn Shiraki , sec. 7

President's Choice:
'Kiwi Treasure Box'- Don Burnett, sec. 13

Best Unnamed Seedling
Ethel Hurst Award:
'Vanilla Sunset' x 'Meadowlark'
Derek Obayashi, sec. 20

Best Epicactus Flower under 5 inches:
'Cassis'- Robert Kuettle, sec. 21

Best Floral Arrangement:
"Peaceful"- Marrie Caldiero, sec. 29

Best Plant:
'Evening Delight' x 'Vanilla Sunset'
Darryl Miyamoto, sec. 40

Best Photograph:
'Kiwi Treasure Box'- Paul Richter, sec. 47

Best Display: All Exhibitors,
"Spring Break"- Jim Nones, sec. 52

TROPHY AWARDS:

Sweepstakes:
Paul Richter (82 points)

Galen Pittman Memorial Award for Best Flower in Show:
Evelyn Shiraki (sec 7)

Division 1, Cut Flowers:
1st Place: Paul Richter (62 points)
2nd Place: Evelyn Shiraki (60 points)
3rd Place: Derek Obayashi (56 points)
4th Place: Darryl Miyamoto (39 points)
Ethel Hurst Award for Best Unnamed Epicactus Seedling:
Derek Obayashi (sec 20)

Division 2, Floral Arrangements:
Marrie & Frank Caldiero (47 points)

Division 3, Plants:
Nina Bashoura (30 points)

Division 4, Photographs:
Jim Nones (22 points)

Division 5, Displays:
Jim Nones (26 points)

DIVISION ONE - CUT FLOWERS

CLASS 1. MEDIUM TO EXTRA LARGE

Section 1 Predominantly White
MEDIUM: No Entries

LARGE:
1st Place: 'Arctic Land'
Exhibitor: Geneva Coats

2nd & 3rd Place: Not Awarded

Hon Men: 'Unicorn'
Exhibitor: Paul Richter

Extra-Large:
1st Place: 'White Splendor'
Exhibitor: Jerry Markle

No Further Entries

Section 2 White with Other Color(s)
MEDIUM: Only One Entry
Hon Men: 'Arctic Land'
Exhibitor: Geneva Coats

Section 3. Predominantly Yellow
MEDIUM:
1st Place: Not Awarded

2nd Place: 'Yellow Tang'
Exhibitor: Geneva Coats

No Further Entries

LARGE:
1st Place: 'Yellow Tang'
Exhibitor: Keith & Pat Ballard

2nd Place: 'Juicy Fruit'
Exhibitor: Don Burnett

3rd Place: 'Bold Gold'
Exhibitor: Darryl Miyamoto

EXTRA-LARGE: No Entries

Section 4 Yellow with Other Color(s)
MEDIUM:
1st to 3rd Place: Not Awarded

Hon Men: 'Meda'
Exhibitor: Jerry Markle

LARGE:
1st Place: Not Awarded

2nd Place: 'Yellow Delight'
Exhibitor: Jerry Markle

3rd Place: Not Awarded

EXTRA-LARGE: No Awards

Section 5 Predominantly Orange
MEDIUM:
1st Place: 'Mariah'
Exhibitor: Nina Bashoura

2nd Place: 'Charlemagne'
Exhibitor: Don Burnett

3rd Place: 'Flamingo'
Exhibitor: Paul Richter

Hon Men: 'Kumso'
Exhibitor: Nina Bashoura

LARGE:
1st Place: 'Raymond Eden'
Exhibitor: Paul Richter

2nd Place: 'Glow Bug'
Exhibitor: Fred Stegner

No Further Awards

EXTRA-LARGE:
1st Place: 'Tijuana Brass'
Exhibitor: Robert Kuettle

2nd Place: 'Stern von Erlau'
Exhibitor: Jerry Markle

3rd Place: 'Yavapai County'
Exhibitor: Jeff Bates

Section 6 Orange with Other Color(s)
MEDIUM
1st Place: 'Beth Jackson'
Exhibitor: Derek Obayshai

2nd Place: 'Fayette'
Exhibitor: Don Burnett

3rd Place: 'Event Horizon'
Exhibitor: Keith & Pat Ballard

LARGE:
1st Place: 'Glow Bug'
Exhibitor: Keith & Pat Ballard

2nd Place: 'Garland O'Barr'
Exhibitor: Nina Bashoura

No Further Awards

EXTRA-LARGE:
1st Place: 'Sunrise Sensation'
Exhibitor: Evelyn Shiraki

No Further Awards

Section 7 Predominantly Red
MEDIUM:

1st Place: 'Sparkle'
Exhibitor: Geneva Coats

No Further Entries

LARGE:
1st Place: 'Turbo'
Exhibitor: Evelyn Shiraki

2nd Place: 'Kathy's Pride'
Exhibitor: Derek Obayashi

3rd Place: 'Red Chrome'
Exhibitor: Evelyn Shiraki

Hon Men: 'Eli Obidiah'
Exhibitor: Robert Kuettle

EXTRA-LARGE:
1st Place: 'Red Chrome'
Exhibitor: Evelyn Shiraki

No Further Entries

Section 8 Red with Other Color(s)
MEDIUM: No Entries

LARGE:
1st to 3rd Place: Not Awarded

Hon Men: 'French Dynasty'
Exhibitor: Nina Bashoura

EXTRA-LARGE
1st Place: 'Flaming Gorge'
Exhibitor: Nina Bashoura

No Further Entries

Section 9 Predominantly Pink
MEDIUM:
1st Place: 'Pink Plumes'
Exhibitor: Paul Richter

2nd Place: 'Fair Lady'
Exhibitor: Paul Richter

No Further Entries

LARGE:
1st Place: 'Royal Hawaiian'
Exhibitor: Nina Bashoura

2nd Place: 'Incognito'
Exhibitor: Paul Richter

3rd Place: 'Whatta Dream'
Exhibitor: Don Burnett

Section 10 Pink with Other Color(s)
MEDIUM:
1st Place: Not Awarded

2nd Place: 'Vanilla Sunset'
Exhibitor: Keith & Pat Ballard

3rd Place: 'Ashland'
Exhibitor: Derek Obayashi

LARGE:
1st Place: 'Kimono'
Exhibitor: Jeff Bates

2nd Place: 'Michele Davis'
Exhibitor: Jerry Markle

3rd Place: 'Fiesta de Flores'
Exhibitor: Geneva Coats

EXTRA-LARGE:
1st Place: 'Tasstic'
Exhibitor: Derek Obayashi

No Further Awards

Section 11. Predominantly Purple & Lavender
MEDIUM:
1st Place: 'Persian Lilac'
Exhibitor: Paul Richter

2nd Place: 'Grace Ann'
Exhibitor: Paul Richter

3rd Place: Not Awarded

Hon Men: 'Feather Queen'
Exhibitor: Paul Richter

LARGE
1st Place: 'Elinor Victoria Latimer'
Exhibitor: Velma Crain

2nd Place: 'First Date'
Exhibitor: Paul Richter

3rd Place: 'Three Wishes'
Exhibitor: Robert Kuettle

Hon Men: 'Sedona Sunset'
Exhibitor: Paul Richter

EXTRA-LARGE:
1st Place: 'Camp Robber'
Exhibitor: Evelyn Shiraki

2nd Place: 'Beijing'
Exhibitor: Darryl Miyamoto

3rd Place: Not Awarded

Hon Men: 'Easy to Love'
Exhibitor: Robert Kuettle

Section 10 Purple & Lavender with Other Color(s)
MEDIUM:
1st Place: 'Grace Ann'
Exhibitor: Paul Richter

2nd & 3rd Place: Not Awarded

Hon Men: 'Persian Lilac'
Exhibitor: Paul Richter

LARGE:

1st Place: 'Flaming Gorge'
Exhibitor: Paul Richter

2nd Place: Not Awarded

3rd Place: 'Crystal Amethyst'
Exhibitor: Nina Bashoura

EXTRA-LARGE:
1st Place: 'Mark Sumpter'
Exhibitor: Derek Obayashi

2nd Place: 'Charles Hardy'
Exhibitor: Jeff Bates

3rd Place: Not Awarded

Hon Men: 'Evening Delight'
Exhibitor: Darryl Miyamoto

Section 13 Colors & Combinations Difficult to Define
MEDIUM:
1st Place: 'Kiwi Treasure Box'
Exhibitor: Don Burnett

2nd Place: Not Awarded

3rd Place: 'Sammy'
Exhibitor: Derek Obayashi

LARGE:
1st Place: 'Grace Ann'
Exhibitor: Nina Bashoura

2nd Place: 'Follow Your Heart'
Exhibitor: Jerry Markle

3rd Place: Not Awarded

Hon Men: 'Tail Feathers'
Exhibitor: Robert Kuettle

EXTRA-LARGE:
1st Place: 'Chuckles'
Exhibitor: Jerry Markle

2nd Place: Not Awarded

3rd Place: 'Orient Express'
Exhibitor: Jerry Markle

CLASS 2. UNNAMED SEEDLINGS

Section 14 Predominantly White & White with Other Color(s)

1st Place: Not Awarded

2nd Place: 'Evening Delight' x 'Chiba Lovely Dawn'- Exhibitor: Darryl Miyamoto

3rd Place: 'Margarita' x 'Radiant Fire' Exhibitor: Robert Kuettle

Section 15. Predominantly Yellow & Yellow with Other Color(s)

1st Place: 'Evening Delight' x 'Chiba Lovely Dawn' - Exhibitor: Darryl Miyamoto

2nd Place: 'Mark Sumpter' x 'Meadowlark' Exhibitor: Derek Obayashi

3rd Place: 'Yellow Tang' x 'Hedge Hog' Exhibitor: Darryl Miyamoto

Hon Men: 'Frühlingsgold' x 'Dijonnaise' Exhibitor: Jim Nones

Section 16. Predominantly Orange & Orange with Other Colors

1st Place: 'Tail Feathers' x 'Oberon' Exhibitors: Darryl Miyamoto & Evelyn Shiraki

2nd Place: 'Sigmund' x 'Meadowlark' Exhibitor: Derek Obayashi

3rd Place: 'Spiced Topaz' x 'Yellow Tang' Exhibitor: Evelyn Shiraki

Hon Men: 'Meadowlark' x 'Sigmund' Exhibitor: Derek Obayashi

Section 17. Predominantly Red & Red with Other Colors

1st Place: 'Ventura Jubilee' x 'Three Oranges' Exhibitor: Robert Kuettle

2nd Place: 'Venetian Affair' x 'Spirit of America' - Exhibitor: Derek Obayashi

3rd Place: 'Evening Delight' x 'Hurst 25th' Exhibitor: Darryl Miyamoto

Hon Men: 'Margarita' x 'Radiant Fire' Exhibitor: Robert Kuettle

Hon Men: 'Lavender Marshmallow' x 'Clown' Exhibitor: Derek Obayashi

Section 18. Predominantly Pink & Pink with Other Colors

1st Place: 'Spiced Topaz' x 'Yellow Tang' Exhibitor: Evelyn Shiraki

2nd Place: 'Summer Carnival' Ex Nat Exhibitor: Chris Welcher

3rd Place: 'Tassel' Ex Nat. Exhibitor: Paul Richter

Section 19. Predominantly Purple & Purple with Other Color(s)

1st Place: 'Evening Delight' x 'Vanilla Sunset' Exhibitor: Darryl Miyamoto

2nd Place: 'Bumpkin' Ex Nat. Exhibitor: Paul Richter

3rd Place: 'Stern von Erlau' x 'Frosted Raspberry' - Exhibitor: Evelyn Shiraki

Hon Men: 'Smarty Pants' x 'Go Go Girl' Exhibitor: Derek Obayashi

Section 20. Color Combinations Difficult to Define

1st Place: 'Vanilla Sunset' x 'Meadowlark' Exhibitor: Derek Obayashi

2nd Place: ('Dracula' x 'Stern von Erlau') x 'Flaming Gorge' - Exhibitor: Darryl Miyamoto

3rd Place: ''Evening Delight' x 'Supernatural' Exhibitor: Darryl Miyamoto

Hon Men: Unknown x 'German Empress' Exhibitor: Jim Nones

CLASS 3. SMALL & EXTRA SMALL

Section 21: Size 3-5 inches - All Colors & Combinations

1st Place: 'Cassis' Exhibitor: Robert Kuettle

2nd Place: 'Marmalade 'N' Honey' Exhibitor: Paul Richter

No Further Awards

Section 22: Extra Small Under 3 inches - All Colors & Combinations

No Entries

CLASS 4. ESA HERITAGE EPICACTUS FLOWERS

Section 23. All Colors and Sizes

No Entries

CLASS 5. SHOWCASED HYBRIDIZER FOR 2016

Section 24. All Colors and Sizes

No Entries

CLASS 6. EPIPHYTIC CACTUS SPECIES

Section 25. All Colors and Sizes

Not Awarded

CLASS 7. COLLECTIONS

Section 26. Three of a Kind

1st Place: 'Radiant Fire' Exhibitor: Jerry Moreau

2nd Place: 'Argus' Exhibitor Geneva coats'

No Further Entries

Section 27. Sprays

No entries

Section 28. Common Denominator

No entries

DIVISION TWO FLORAL ARRANGEMENTS.

CLASS 8. TRADITIONAL CONTAINERS. NO ACCESSORIES, FRESH PLANT MATERIAL ONLY

Section 29. One Epicactus or Epiphytic Species Flower

1st Place: "Peaceful" Exhibitor: Marrie Caldiero

2nd Place: "Peace" Exhibitor: Jim Nones

3rd Place: 'Flaming Gorge' Exhibitor: Keith & Pat Ballard

Section 30. More than One Epicactus or Epiphytic Species Flowers

1st Place: "Alone" Exhibitor: Marrie Caldiero

2nd Place: 'Bisco' Exhibitor: Keith & Pat Ballard

3rd Place: Not Awarded

CLASS 9. TRADITIONAL CONTAINERS. ACCESSORIES REQUIRED, FRESH OR DRIED PLANT MATERIAL

Section 31. One Epicactus or Epiphytic Species Flower

1st Place: "Rondel" - Exhibitor: Jim Nones

2nd Place: 'Sea Breeze' Exhibitor: Marrie Caldiero

3rd Place: Not Awarded

Section 32. More than One Epicactus or Epiphytic Species Flower

1st Place: 'Jungle Beauty' Exhibitor: Keith & Pat Ballard

No Further Awards

Section 33. One Epicactus or Epiphytic Species Flower

1st Place: Name: "Oasis" Exhibitor: Marrie Caldiero

No Further Awards

Section 34. More than One Epicactus or Epiphytic Species Flowers

1st Place: "On the Trail" Exhibitor: Jim Nones

No Further Awards

CLASS 11, THEMED ARRANGEMENTS ANY CONTAINER, PLANT MATERIAL OR ACCESSORIES OR NUMBER, COLOR, OR SIZE OF FLOWERS, TO CARRY OUT THEME.

Section 35. Themed Floral Arrangements.
1st Place: Name: "Opuntia"
Exhibitor: Jim Nones

No Further Awards

Section 36. Show Theme: Exotica
1st Place: Name: " Art Deco"
Exhibitor: Jim Nones

2nd Place: Name: "Exotica "
Exhibitor: Geneva Coats

3rd Place: Not Awarded

DIVISION THREE - PLANTS

CLASS 12. EPICACTUS PLANTS. (INCLUDES (EPIPHYTIC CACTUS HYBRIDS & APOROPHYLLUMS)

Section 37. Registered hybrid - hanging.
No Entries

Section 38. Registered hybrid - staked, trellised or pedestal plants.
1st Place: 'Bold Gold'
Exhibitor: Darryl Miyamoto

No further awards

Section 39. Unnamed hybrid -hanging.
No Entries

Section 40. Unnamed hybrid - staked, trellised or pedestal plants.
1st Place: 'Evening Delight' x 'Vanilla Sunset'
Exhibitor: Darryl Miyamoto

2nd Place: 'Evening Delight' x Unknown orange/red seedling
Exhibitor: Darryl Miyamoto

3rd Place: 'Orangutan' x 'Beijing'
Exhibitor: Darryl Miyamoto

CLASS 13. EPIPHYTIC CACTUS SPECIES PLANTS.

Section 41. Epiphyllum Species from the genera Epiphyllum, Disocactus, Hylocereus, Selenicereus, Strophocactus & Weberocereus, in hanging containers
1st Place: Epiphyllum phyllanthus
Exhibitor: Nina Bashoura

No Further Entries

Section 42. Epiphyllum Species from the genera Epiphyllum, Disocactus, Hylocereus, Selenicereus, Strophocactus & Weberocereus staked, trellised or pedestal plants:
No Entries

Section 43. Other Species from the genera Hatiora, Lepismium, Lymanbensonia, Pfeiffera, Pseudorhipsalis, Rhipsalis & Schlumbergera, in hanging containers
1st Place: Rhipsalis baccifera
Exhibitor: Nina Bashoura

2nd Place: Rhipsalis baccifera
Exhibitor: Nina Bashoura

3rd Place: Lepismium houlletianum
Exhibitor: Nina Bashoura

Section 44. Other Species from the genera Hatiora, Lepismium, Lymanbensonia, Pfeiffera, Pseudorhipsalis, Rhipsalis & Schlumbergera, staked, trellised or pedestal plants:

1st Place: Rhipsalis pentaptera
Exhibitor: Nina Bashoura

2nd Place: Rhipsalis horrida
Exhibitor: Nina Bashoura

3rd Place: Rhipsalis cereuscula
Exhibitor: Nina Bashoura

DIVISION FOUR - PHOTOGRAPHS

CLASS 14 REPRESENTATIONAL STYLE.

Section 45. Registered Epiphytic Cacti and "Holiday" Cactus.
1st Place: 'Kiwi Treasure Box'
Exhibitor: Paul Richter

2nd Place: Name: "Sea Horses"
Exhibitor: Jim Nones

3rd Place: Alejander Ernest Estrada'
Exhibitor: Jim Nones

Hon Men: Name: "Small Bloom"
Exhibitor: Geneva Coats

Section 46. Epiphytic Cactus species.
1st Place: Name: "Dragon Fruit"
Exhibitor: Paul Richter

2nd Place: Selenicereus macdonaldiae
Exhibitor: Jim Nones

3rd Place: Selenicereus macdonaldiae
Exhibitor: Jim Nones

Hon Men: Epiphyllum Strictum
Exhibitor: Geneva Coats

CLASS 15 ABSTRACT STYLE.

Section 47. Subject Matter relating to Epiphytic Cacti
1st Place: Name: "Birds"
Exhibitor: Jim Nones

2nd Place: 'Infrared' - Exhibitor: Jim Nones

3rd Place: Not Awarded

CLASS 16 HORTICULTURE RELATED DISPLAYS.

Section 48. Individual Exhibitors
No entries

Section 49. Societal Exhibitors
No Entries

Section 50. Commercial Exhibitors
No Entries

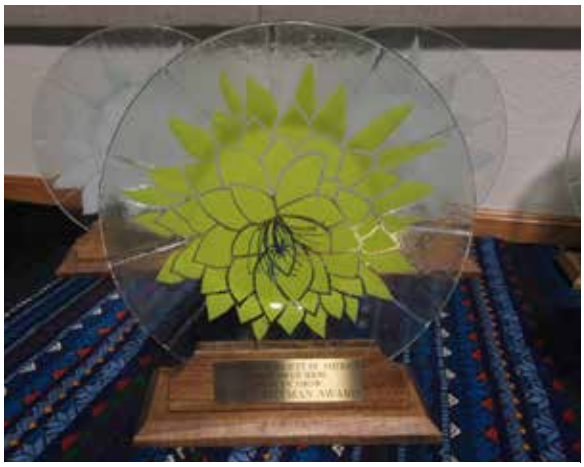
CLASS 17 EDUCATIONAL DISPLAYS

Section 51 All Exhibitors.
1st Place: Name: "Hybridizing Epies"
Exhibitor Jim Nones

Section 52 Six(6) or more photographs organized into a photographic display
1st Place: Display Name: "Spring Break"
Exhibitor: Jim Nones

No Further entries

ESA Award Winners



The Best In Show - Galen Pittman Award Plate

President's Choice: *'Kiwi Treasure Box'* - Don Burnett

Best In Show: *'Turbo'* - Evelyn Shiraki

Best Extra Large: *'Red Chrome'* - Evelyn Shiraki

Best Seedling: *'Vanila Sunset' x 'Meadowlark'* Hybridizer Derek Obayashi

Best Small: *'Cassis'* - Robert Kuettle

Best Plant:
'Evening Delight' x 'Vanilla Sunset'
Grower/Hybridizer -Darryl Miyamoto

Best Floral Arrangement: *"Peaceful"* - Marrie Caldiero

1st Place Winners

'Arctic Land' - Geneva Coats

'White Splendor' - Jerry Merkle

'Yellow Tang' - Keith Ballard

'Tijuana Brass' - Robert Kuettle

'Mariah' - Nina Bashoura

'Beth Jackson' - Derek Obayashi

'Raymond Eden' - Paul Richter

'Glow Bug' - Keith Ballard

'Sunrise Sensation' - Evelyn Shiraki

'Pink Plumes' - Paul Richter

'Sparkle' Geneva Coats

'Royal Hawaiian' - Nina Bashoura

'Flaming Gorge' - Nina Bashoura

'Kimono' - Jeff Bates

'Tasstic' - Derek Obayashi

'Camp Robber' - Evelyn Shiraki

'Persian Lilac' - Paul Richter

'Grace Ann' - Paul Richter

'Elinor Victoria Latimer' - Velma Crain

'Flaming Gorge' - Paul Richter

'Mark Sumpter' Derek Obayashi

'Evening Delight' x 'Chiba Lovely Dawn (24-2)
Hybridizer - Darryl Miyamoto

'Grace Ann' - Nina Bashoura

'Tail Feathers' x 'Oberon' (4-5)
Hybridizers - Shiraki/Miyamoto

'Chuckles' - Jerry Markle

'Ventura Jubilee' x Three Oranges' (35-3)
Hybridizer - Robert Kuettle

'Spiced Topaz' x 'Yellow Tang' (70-4)
Hybridizer - Evelyn Shiraki

"Alone" - Marie Caldiero

'Evening Delight' x 'Vanilla Sunset' (43-4)
Hybridizer - Darryl Miyamoto

"Rondel" - Jim Nones

'Radiant Fire' - Jerry Moreau

"Jungle Beauty" - Pat Ballard

Oak Leaf Mold Revisited

by Keith Ballard

Some years ago, many epi growers used oak leaf mold in their planting mix. Curt Knebel who was active in the 1930s, recommended leaf mold and there are hundreds of references to oak leaf mold over the years in past Bulletins. However, back in 2005 there was a problem with oak trees, at least in California, caused by a pathogen called: Phytophthora remorum (or P. remorum), which resulted in Sudden Oak Death (aka SOD). As a result, oak leaf mold disappeared from the marketplace. It was then that we started using coir (coconut fiber) as a substitute. Recently, as I was gathering repotting supplies at Moneta Nursery, I noticed bags of LGM Oak Leaf Mold, and I bought one.

Oak leaf mold, quite simply, is rotten oak leaves. Leaf mold is not the same as compost. Compost is produced by bacterial decomposition. Leaf mold is produced by fungal decomposition. Compost is hot, aerobic, and quick. Leaf mold is cool, slow, and can be produced with little oxygen. This means it does not have to be turned. Whereas compost needs a variety of ingredients to attain the right carbon to nitrogen ratio to feed the bacteria, leaf mold needs only one ingredient, the leaves. Leaves have a carbon to nitrogen ratio ranging from 80:1 to 200:1. There is some nitrogen available, but not enough to allow the bacteria population to explode.

Oak leaf mold retains water and helps to maintain the proper acidic level just like coir, but it has a few other attributes which may offset the increased cost over coir and make it well worth revisiting.

Soil Conditioner: Leaf mold (LM) serves as a soil conditioner rather than a natural fertilizer. It primarily changes the structure of the soil rather than serving nutrient needs. This is caused by the fungus. All of the little hairs of the fungus grabbing onto soil particles help to bind loose soil, while at the same time the hyphae help to break up compact soil. The natural growth habit of the fungus will move from the leaf mold to the surrounding soil in all dimensions. Leaf mold will continue to break down until the only thing left is stable humus which will remain in the soil for decades to centuries, until a fire destroys it. Until then, the leaf mold is rich in organic components: humic acids, carbohydrates, lipids, and minor amounts of other good things. It is complex and impossible to manufacture. As the foundation of the soil ecosystem, there is nothing better.

Water Retention: There are claims that leaf mold will hold several times its weight in water. So here is a water retention demonstration. Some LM was run over with a lawn mower to shred them and some stuffed through a ¼ inch mesh and then combined. Four ounces of this dry material were weighed out, enough to fill a 16 ounce drinking cup. This material went into a bucket. The bucket was weighed and then water added. The next day the excess water was drained off, and the bucket and leaves were weighed again. The four ounces of LM held 18 ounces of water. It's not a big enough data sampling to be greatly accurate, but the fact that the LM held four and a half times its weight in water is impressive.

Minerals: The fertilizer N-P-K values of leaf mold are nothing to write home about. They are typically listed around 2.2 - .8 - 1.6, or so, depending upon the tree species. What leaf mold does bring to the table are minerals. The roots of trees accumulate nutrients from deep in the ground, sending plenty to the leaves. While the nutrients are drawn back into the tree before the leaves are shed, most of the minerals remain, as they are part of the leaf structure. The website www.composterconnection.com says: "Pound for pound, the leaves of most trees contain twice the mineral content of manure. And they provide the perfect nutrition for beneficial microbes; in short, they make the soil come alive."

Reduce Harmful Bacteria: One more benefit of oak leaf mold is that it has been shown in scientific tests to reduce harmful soil bacteria by 75%.

Make Your Own Oak Leaf Mold: If you happen to have a source of oak leaves, as does Ed Beardsley, you might consider making your own leaf mold. There are two popular ways to make leaf mold, and both are ridiculously simple. The one thing you'll need to keep in mind is that leaf mold doesn't happen overnight. Leaves are basically all carbon, which takes a lot longer to break down than nitrogen-rich materials like grass clippings. The decomposition process for leaves takes at least six to twelve months (or more). The good news is that it's basically six to twelve months with very little work on the gardener's part.

The first method of making leaf mold consists of either piling your leaves in a corner of the yard or into a wood or wire bin. The pile or bin should be at least three feet wide and tall. Pile up your leaves, and thoroughly dampen the entire pile. Let it sit, checking the moisture level occasionally during dry periods and adding water if necessary. The second method of making leaf mold requires a large plastic garbage bag. Fill the bag with leaves and moisten them. Seal the bag and then cut some holes or slits in the bag for air flow. Let it sit. Check the bag every month or two for moisture, and add water if the leaves are dry.

After six months to a year, you will have finished leaf mold. Impatient? There are a couple of things you can do to speed up the process:

Before adding leaves to your pile or bag, run over them a couple of times with your lawn mower. Smaller pieces will decompose more quickly.

Use a shovel or garden fork to turn your leaf pile every few weeks. If you are using the plastic bag method, just turn it over or give it a firm shake. This will introduce air into the process, which speeds decomposition.

If you are using the pile or bin method, cover your pile with a plastic tarp. This will keep the leaves more consistently moist and warm. In addition, the cover will keep other things out and the leaves contained in a wind.

Editors Note: The descriptive material for leaf mold came from two internet articles: www.permies.com: "Incredible – Amazing – Leaf-Mold" and "How to Make Leaf Mold" from http://organicgardening.about.com/od/compost/a/LeafMold.htm.

Study of Mix Compositions

by Keith Ballard

This study is a follow up and expansion of my "Use of Kellogg Garden (KG) Organic Mix" study, last reported on in the Spring 2016 Bulletin. This study started on July 17, 2015, which is late in my repotting activities, and included four leftover cutting pairs of 'Eva Paetz', 'Spring on Mars', 'Vanilla Sunset' and 'Zinger'. This article begins with my final report on the current Kellogg results, then I detail my new study. The first study had to end as the cuttings are getting so big that they are falling over and need up-potting. In fact, the KG-potted 'Eva Paetz' fell over three times while I was taking the photograph included in this Bulletin.

Kellogg Garden Cutting Study: The cuttings are shown in the 5/26/2016 photo that is included herein. Again the KG planted cuttings are always on the right. This first study included the four cutting pairs, one of each planted in my then-standard mix which included LGM Potting Soil and one each in KG Shade Mix, subtitled For Acid Loving Plants. The fertilizer for the different mixes is also different. The fertilizer for the LGM mix is chemical with values of 7.3-22-11 and the fertilizer for the KG mix is organic with values of 7-5-7.

All the KG potted cuttings eventually produced healthy-looking new growth. These generally showed new growth before their KGM mates. The KG growth is bigger than its LGM 'Vanilla Sunset' mate, about the same for the 'Spring on Mars' pair, and the new growth for the LGM 'Eva Paetz' and 'Zinger' (which I thought had died) is pathetic compared to their KG mates.

Mature Plant Flowering KG Impacts: The real question I have here is whether there is any impact on flowering caused by mix content change. I have the potential for real data here as I record the date that the first flower opens on each plant that year, plus the number of remaining viable-looking buds. I do not include in the count the buds that look like they are getting ready to fall off, which I pick off. Plus I know that some buds will drop that look viable at the time, so it is not an exact count of flowering, but more a "figure of merit" which gives some feel for the condition of the plant. For example, if there is a large change in the bud count of a given plant, either up or down, the message may very well be "repot me." I have found that in many cases, the flower / bud count for such a plant for the next year will be one or none.

So, what were the results for this year? My normal mix has been: two parts LGM Potting Soil; two parts coir; two parts perlite; one part bark, plus 1 cup per gallon of mix, of the chemical fertilizer mentioned above. For the mature plants listed in the table below, the LGM Potting Soil was replaced last year by KG Shade Mix and the fertilizer by KG Organic General Purpose Fertilizer. The 2016 results are as follows:

NAME	# OF BLOOMS In 2016	HISTORY
'Bound for Glory' (8in)	0	4 blooms in 2015 & 2 in 2011&12, not growing well.
'Bound for Glory' (6in)	0	1 bloom in 2015, none before, growing.
'Ferris Wheel'	2	No Past History..
'Flirtation'	6	3-8 blooms, fell 12/15, repotted with Kellogg.
'Perry J.'	0	No flowers since 2008.
'Romantic Night'	5	1-11 blooms per year since 2008.
'Souzan'	0	Consistent 3-6 blooms before, 2 new branches
'Terry F. Palmer'	0	1 bloom per year since 2011, lots of growth
'Timeless'	0	No blooms, almost every branch growing a lot.

in the mature plants. Also, like the cuttings, the amount of new growth is variable. However, in many cases the flower production is much lower than the given plant's history. Here the plants with the most growth didn't produce any flowers. This pattern is like a plant that is getting too much nitrogen and growing well but doesn't bloom. Remember that my KG mix is both "for acid loving plants" and uses the KG fertilizer whose (N2) content is 7.00%. The KG All Purpose Organic fertilizer carries the notes: "6.00% N2 water insoluble and 6.00% slow release N2." I assume both notes refer to the same 6% of N2.

The bottom line here is that perhaps the combination of the KG organic acidic mix and the KG fertilizer results in too much N2 for blooming epies.

The Wider New Mix Study: As I noted in the article in this Bulletin "Oak Leaf Mold Revisited," I recently found some LGM Oak Leaf Mold in a nursery and bought some. I decided to start a wider mix study using two new mixes of: (1) two parts KG, two parts oak leaf mold and the KG All Purpose Fertilizer and (2) of two parts LGM Potting Soil and two parts oak leaf mold and my regular fertilizer. The other two mixes were what I have used before with (3) LGM Potting Soil and coir, with my fertilizer; plus what I tried last year as discussed above with the cuttings and mature plants of (4) KG and coir, with KG fertilizer, for a total of 4 different mixes. All mixes use the same amounts of perlite and bark as used before. I then used all four different mixes to repot epi plants.

I started this comparative study just after the flower season had started, so based on the results above, the last mix i.e. the number (4) mix, may not have been the wisest choice for producing lots of flowers. But we will see what happens. The plants in that mix seem "happy enough" for right now.

2015 Registrations part 1

Hybridizer Key	
AX	Gladys Axcell
GBRAN	Gary Brandfellner
DB	Don Burnett
MDB	Mike Davis
GARDNER	Carla Gardner
KLUG	Richard Klug
LAT	Richard Latimer
LUX	Arnhelm Lux
MIY	Darryl Miyamoto
MIY/SHI	Darryl Miyamoto/Evelyn Shiraki
NONES	Jim Nones

'Gene Murray' - GBRAN

'Timmie Jo' - AX

'Hot Chocolate' - GBRAN

'Garden of Eden' - GBRAN

'Huell Howser's Gold' - GBRAN

'Juanita Villa Lopez' - GBRAN

'Teruko Fujita' - GBRAN

'Pearls' - GBRAN

'Wildlife' - GBRAN

'Platypus' - GBRAN

'Fayette' - DB

'Hula Girl' MBD

'Catelyn' - KLUG

'Sunny G' - MBD

'Clarity' - KLUG

'Kathy's Clown' - GARDNER

'Crimson Sunset' - KLUG

'Guilty Pleasures' - KLUG

'Orange Ruffles' - KLUG

'Hello Kitty' - KLUG

'Orangina' - KLUG

'Lavender Ruffles' - KLUG

'Red Rose' - KLUG

'Royal Ruffles' - KLUG

'Sonoma Breeze' - KLUG

'Royal Sunset' - KLUG

'Yellow Passion' - KLUG

'Ruffled Rose' - KLUG

'Angel Ribbons' - LUX

'Lava Light' - LAT

'Strockerich' - LUX

'Lacewing' MIY

'Arju Aulu' - LUX

'Adela Antonio-Nones' - NONES

'Dreamboat Annie' - MIY/SHI

'Angela M. Nones' - NONES

'Brother Lawrence' - NONES

'Amara Nones-Battams' - NONES

'Chocolate' - NONES

'Christ's Passion' - NONES

'Disney Princess' - NONES

'Darrell Jenkins' - NONES

'Dorothy Mae Jenkins' - NONES

'Dr. RWK' - NONES

'Juanita M. Nones' - NONES

Marian Burgos Takahashi' - NONES

'Misue Takahashi' - NONES

'Marla Nones Battams' - NONES

'Saint Joseph' - NONES

'Mila Antonio- Nones' - NONES

'The Messiah' - NONES

Calendar *of* Events

August 2016

ESA GENERAL MEETING **Tue, Aug 2, 7:30 pm**
Program: Mike Moody, President of L.A. International Fern Society gives a talk on growing ferns and gives a demonstration on mounting a staghorn fern.
Refreshments: Members with last name starting with O thru Ra the July meeting is your turn to bring snacks, help serve and clean up.
Location: Arboretum of LA County, Bamboo Room.

Pentico Work Party **Sat Aug 6, 9:00 am**
Location: Arboretum of LA County, Contact: Ken Hanke 818-239-6479

ESA BOARD MEETING **Tue, Aug 30, 7:30 pm**
Location: Arboretum of LA County, Bamboo Room.

September 2016

ESA GENERAL MEETING **Tue, Sept 6, 7:30 pm**
Program: Annual Silent Auction & Member's Pot Luck Social
Refreshments: Everyone bring a dish.
Location: Arboretum of LA County, Bamboo Room.

Pentico Work Party **Sat Sept 10, 9:00 am**
Location: Arboretum of LA County, Contact: Ken Hanke 818-239-6479

ESA BOARD MEETING **Tue, Sept 27, 7:30 pm**
Location: Arboretum of LA County, Bamboo Room.

October 2016

ESA GENERAL MEETING **Tue, Oct 4, 7:30 pm**
Program: TBD
Refreshments: Members with last name starting with Ri thru Sd the July meeting is your turn to bring snacks, help serve and clean up.
Location: Arboretum of LA County, Bamboo Room.

Pentico Work Party **Sat Oct 8, 9:00 am**
Location: Arboretum of LA County, Contact: Ken Hanke 818-239-6479

ESA BOARD MEETING **Tue, Oct 25, 7:30 pm**

Revised Refreshments Schedule

To find when it is your turn to bring refreshments for an ESA meeting, look for your last name initial in the column to the left. The meeting date to the right is when you have the privilege of providing food, serving and cleaning up. Please, note that name listing is often completely revised for each Bulletin.

LAST INITIAL	MEETING DATE
O-Ra	Tue, Aug 2, 2016
Potluck	Tue, Sep 6, 2016
Ri-Sd	Tue, Oct 4, 2016
St-Th	Tue, Nov 1, 2016
V-Ba	Tue, Feb. 7, 2017