# The Bulletin epiphyllum society of america





'INDEPENDENCE ROCK'

'Blushing Star' × 'Wind River'

Hybridizer Evelyn Shiraki Reg. #14498

PHOTOGRAPH: Terence Brashear

## The Bulletin

EPIPHYLLUM SOCIETY OF AMERICA

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**MEETINGS:** Begin at 7:30 p.m., on 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 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. in the Lecture Hall B, 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.



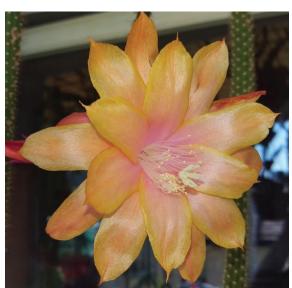


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From Top:

'Brilliant' photo Bernhard Lengnau

'Prof. Dr. Lenzen' photo Bernhard Lengnau

## Summer Epi Culture Guidelines

By Keith Ballard

This is an updated reprint from Bulletin: Vol. 63, No 4, (Summer 2008)

Every year, new members join us and naturally they have many questions about care and culture. This column could easily fill an entire issue if we tried to anticipate every question. Since that's not feasible, the focus is on those questions most frequently asked by our friends just starting their "epic journey".

When rooting a cutting, it is wise to let the cut end callous over by placing it in a cool, dry, dimly lit place for at least a week—longer if the wound is large. The callous reduces the chance of harmful bacteria attacking the cutting and causing it to rot. The cuttings sold at the ESA Show are already calloused and ready to plant. For best results, root-promoting compound should be applied to the wound right after it is cut. It can still be applied later, but with less benefit.

The best new growth will emerge from areoles (indentations) along the edges at the base of the stem. Insert the cutting no more than about 2 inches into the potting mix. Ideally, two live areoles will be below the soil line. Right side up is when the areoles point up. Epi cuttings will root upside down, but it takes longer. Some cuttings have areoles so close together more than two will be buried. This is good. Others have areoles so far apart, it is impossible to get two beneath the soil line without planting the cutting too deep. In such cases, it is best to settle for one live areole under ground. A live areole is one which is still connected to the stem's midrib by a healthy vein. The vein runs from the stem's midrib to the areole in an upward arching curve. If a vein is cut or damaged, the areole will not produce new stems. If the vein is not visible, hold the cutting up to the light.

The subject of potting mix formula is a book in itself. However, there is no general consensus on the ideal mix. The one critical attribute for any mix is that it must drain well. Epies do not do well in soggy mix. The two key mix additives that will improve drainage, are perlite and bark chips. Again, there is no consensus regarding which size is best — the large #3 perlite or the smaller #2. Likewise with bark: the choices are high quality (and costly) orchid bark; inexpensive small path bark; very fine ground cover bark; or a combination. Very fine ground cover bark is actually smaller than small path bark. Path bark also comes in medium and large, neither of which is suited for epicacti mix.

Current epi growers use a wide variety of mixes. The traditional epi mix included peat moss and oak leaf mold. However, both

disappeared from the market place, at least in Southern California. I noticed recently that oak leaf mold has returned, of course for twice the cost (See the article on leaf mold in this Bulletin). History has shown that peat moss is not ideal anyway, as if it ever dries out, it is almost impossible to rewet without submersion.

One popular mix starts with a good quality commercial Camellia or Azalea mix modified for epicacti by adding up to 1/3 total perlite and/or bark chips. Some growers swear by cactus mix as a major ingredient. Still others mix their own. My mix is 1 part leaf mold, 2 parts LGM potting mix, 1-1/2 parts #3 perlite, and 1 part orchid bark. I also add a cup of azalea fertilizer per 5 gallons of mix. The resulting mix has a pH of 5.5 to 6.5, meeting the definition of "slightly acid". One might say that epies are not too fussy about what they will grow in, but it must drain well and be slightly acidic.

A valuable additive is horticultural charcoal. Charcoal is a carbonaceous organic material that absorbs several thousand times its weight in non-beneficial gasses from anaerobic bacteria. This keeps potting soil "sweet". It also has a favorable buffering effect on soil ph. Use half a cup per gallon of mix by volume. Bone meal as a slow release fertilizer has fallen out of favor with most growers, because it acts very slowly. However, hybridizer Gerry Mattijetz feels that bone meal helps keep the mix "sweet". If you'd like to try bone meal, the former rule was "a half a cup of bone meal per gallon of mix acts as a slow-release fertilizer to promote root growth". Some growers add a tablespoon of 0-10-10 fertilizer to a gallon of mix. However, a newly rooted cutting can go without additional fertilizer for a year. If you add fertilizer to your mix, avoid those with fast acting nitrogen.

The ideal mix for your growing conditions will remain moist, but not wet, for a week to ten days in typical summer weather. Moisture loss is due mainly to evaporation from the top of the planter, which is accelerated if the sun also heats the pot itself. If you are in a hot, dry area, make your mix "heavier" by adding organic material to retain moisture longer. If you are in a cool and humid coastal area, you may want to make your mix "lighter" by increasing perlite and bark. There is no perfect year-round mix for deserts or areas with freezing winters. In these areas, it is best to formulate a mix to suit summer conditions, and withhold water during the semi-dormant winter months.

Mix must drain quickly. If water poured into a planter does not run out the drain holes in thirty seconds, it is too dense. It is either compacted or more coarse material needs to be added.

When choosing a cutting, look for healthy, fleshy. one-year-old stems. Fresh new growth is not suitable. It must be past the rubbery stage. Likewise, it should not be too old, leathery or dehydrated. In short, the best cuttings come from the very stems that will produce flowers. When making cuttings, do it right even though it means sacrificing flowers the following year. Discard stems that are old, diseased or dried out. A stem more than a foot



long can be cut in half. The end with the growing tip should have the meristem (rubbery growing tip) removed to discourage tip growth, nicknamed rabbit ears.

When potting, choose a pot of appropriate size for the cutting, Do not put a 3 inch (7.5 mm) wide cutting into a 3 inch pot, as there will be no room for new stems to emerge from below the soil line. Similarly, don't stick a tiny cutting into a gigantic pot as it will be surrounded by too much wet soil. If you reuse pots, disinfect and rinse them thoroughly. Do not reuse pots in which crocus, lilies or tulips were grown. These may harbor infectious virus. Think twice before reusing porous pots formerly used for a plant infected with any of the cactus viruses.

The technique for potting a cutting is to hold the cutting in place in the pot and add damp mix until the cutting stands on its own.

Do not compress the mix. If necessary, support the cutting with a stake and tie until it takes root. Do not put the mix in the pot and then ram the cutting into it. If you do, there is danger of damaging the calloused end.

Keep the potted cutting in a cool, dimly lit location for around three weeks. Do not water. A cutting has no roots. It cannot take in water. Cold, wet soil is a breeding ground for harmful anaerobic bacteria. The dampness in the mix is enough to stimulate root growth. Misting the cutting daily or even every few days for the first few weeks will prevent dehydration and stimulate growth, but avoid saturating the mix.

Watch for signs of new growth. If a cutting starts to put out a stem at its tip within a few weeks, snip it off. This encourages basal stems. If a cutting has no new growth after several months, then puts out tip growth. leave it alone, as this may be all you can hope for from this cutting.

Occasionally a cutting will develop a bud. If the cutting is of a small flowering cultivar, you can probably leave it alone. Don't be surprised if the plant disbuds of its own accord. It is a different matter with larger flowers. A plant loses 60% more moisture through a flower than through its stems. Allowing a newly potted cutting to flower means energy will be diverted from growing roots and stems. There is a chance the cutting will bloom and die, or at least be set back.

Chances are a flower on a newly potted cutting will be of inferior size and quality, so it's best to remove the bud. Of course, the health and size of the cutting are important factors. Use your own judgement.

In about six weeks, you can tell if a cutting is taking root by gently tugging on it. If there is resistance, its roots are taking hold. Once rooted, watering with Vitamin B-1 is beneficial. Vitamin B-1 is not fertilizer. It stimulates a plant's "appetite" causing more root growth to satisfy the craving.

Start watering a little at a time and increase gradually over a two week period. Once the cutting is on a regular watering schedule, the mix should never be allowed to become bone dry.

When the cutting is established, select a permanent location for your plant. Epies need 70% to 80% filtered light, especially from mid-day sun. If you have to choose between too little and too much light, too much is better. The stems may turn reddish and show signs of stress, but they are more likely to bloom. If direct sunlight is unavoidable, they prefer morning to afternoon sun. Epies like it humid. They get moisture from the atmosphere. If temperatures exceed 80 °F, they should be misted.

They need good air circulation. but not strong wind. Like all cacti, epicacti close their "pores" (stoma) in response to bright light. "Holding their breath" all day is how cactus conserve water. They "breathe" at night, storing the gasses needed for photosynthesis (food production) the following day. Photosynthesis occurs only in the presence of light. Since epies do not cool themselves by releasing water through their leaves like most plants do, they rely on air convection, i.e. a breeze, to cool them down, or on mist or rain. According to Michele Davis of Gray/Davis Epiphyllums, air circulation is essential for bud formation.

Epies have few pests. Snails and slugs are enemies, as are aphids, some caterpillars, and some scale. Left alone, over time, they can do much damage. Use whatever eradication tactics you normally do. Aphids can be wiped off buds with a Kleenex. Epies are tolerant of chemical pesticides, though I have seen that Raid Ant Killer damages plants.

A number of viruses infect cacti. They may be present even if there are no symptoms. They are transferred by sap to sap contact. To prevent unintentional contamination, sterilize pruning tools between plants. A good technique is to dip pruning snips in denatured or rubbing alcohol and burn off the excess using a butane cigarette lighter. A hand held propane torch works faster and better, but costs more. A saturated solution of Tri-Sodium-Phosphate (TSP) (if you can still find it) reportedly kills plant viruses. But TSP must be thoroughly rinsed off as any residue will cause a cut stem to die back. Alcohol or bleach alone will not rid tools of cactus virus. With all these chemicals, it is best to wear protective eye wear, clothing, and latex gloves. However, a former head of propagation at the LA County Arboretum stated that bleach mixed 2 tablespoons per gallon of water with a 30 minute soak will kill anything on plastic pots, even without pre-washing. I will see if there is more data on dealing with scale and publish it in the next Bulletin.

Finally, don't be discouraged if your large and extra-large flowering plants started today don't bloom for a year or more. Small-flowering epies bloom on new growth, but with large and extra-large flowering kinds, stems have to mature before they will bloom. They're worth the wait.

## EpiCon XVI Report

By Keith Ballard

If you didn't know, EpiCon is an international conference on epicactus, hosted by one of the three southern California epiphyllum societies at two year intervals. Starting this year, the circular hosting order is: the San Diego Epiphyllum Society (SDES), the Epiphyllum Society of America (ESA), and the South Bay Epiphyllum Society (SBES). This year's conference was held May 23, 2018 at the San Diego Zoo Safari Park (aka Safari Park), in the Mombasa Pavilion. There were 91 people in attendance. Due to Park rules, no pictures or videos of the presentations were allowed.

**Status of the Southern CA Epi Societies:** All three southern California epi societies are doing well. Some special notes are: 1) The SDES has a new Epi Display Area at the Safari Park (a tour was offered before the conference started) and 2) President Tony Yanko (20 years) and Treasurer Don Burnett (25 years) are retiring from the SBES, and member Paul Richter has volunteered to be SBES President.

#### **CONFERENCE PRESENTATIONS**

**Rudolf Hessing-Herick (Keynote Speaker, KS)** — Lives in northern Germany near the Netherlands border and has been



Rudolf Hessing Herick

growing epicactus for 30 years. He started out with 'Ackermannii' and 'German Empress'. Rudolf has been hybridizing with an emphasis on creating small flowers, offseason blooms and attractive plants. He had

dreams of creating epies that bloom every month of the year, with growth similar to E. Anguliger. Several years ago he accomplished that dream. In 2014 he received the ESA Founders award. He has been a SDES member since 2006.

Rudolf showed pictures of some of his originations. He has been hybridizing epies for 19 years and has around 280 of them.

**Jerry Moreau (KS)** — SDES Honorary Life Member, currently serving as a SDES Director, Editor of Epi News and as the coordinator of the epiphyllum collection and display at the San Diego Zoo Safari Park. He also serves as a director on the board of the Epiphyllum Society of America. In 2017 he received the ESA Founders award, and



Jerry Moreau

he has been a SDES member since 2001.

Jerry talked about the new epi display area at the Safari Park, called the Epiphyllum Trail'. There is a crew of 25 volunteers to do the work to maintain the display which has a "junglelike" setting.

**Ulrich Haage (KS)** — Has a degree in horticulture and owns Kakteen-Haage Cactus Nursery in Erfurt, Germany. The nursery was established in 1685 and is over 300 years old making it "The Oldest Cactus Nursery in the World"! They sell over 1500 different cactus,



Ulrich Haage

succulents and epicactus, including many rare plants. He has contributed his skills in leading international collections, such as the Royal Botanic Gardens Kew in London and the Municipal Succulent collection in Zurich. A SDES member since 2006. Haage

Nursery was one of the first recipents of the ESA Founders Award.

Ulrich first described and showed pictures of the current nursery. In a later session he gave the linage of his family owners of the nursery and just as the conference was ending he gave us the good news that a German scientific establishment was looking into virused epiphyllums. Hopefully, something will come out of this study for dealing with virused epies rather than throw the plant away or try to out-race the virus by repeated taking and starting young cuttings.

Rudi Dorsch, MD (KS) — Retired doctor of medicine, specialty



Dr. Rudi Dorsch

gastrointestinal and liver disease. He currently lives in Colorado and is considered a leading epiphytic cacti species and *Schlumbergera* expert, as well as being the liaison between German and American



epiphyllum societies. Those who have attended previous EpiCons will remember Rudi as one of the favorite speakers. In 2011, he received the ESA Founders award. A SDES member since 1988.

Rudi talked about fairly recently deceased German hybridizer Helmut Paetzold. Helmut has 270 registered hybrids, which mostly all are small-sized and are named after family and friends (first name and then 'Paetz').



Derek Obayashi

Derek Obayashi (KS) — Is a self described "Epi Fanatic". He was raised in Chicago but spent summers with nurturing and loving grandparents in San Diego. Every second Wednesday for years, he forced his grandmother to attend SDES meetings. He would

call her late that night to learn what new hybrids "we" won in the raffle. Derek studied Chemical Engineering but said he should have listened to his mother and studied life sciences. Derek works in the pharmaceutical industry but his passion after 40 years has been and still is collecting, growing and hybridizing epies! In 2016 he received the ESA's Founders award. A SDES member since 1982.

Derek actually lives in Chicago, but his collection (including about 2000 seedling epies in 4 inch pots) is located in San Diego. A lot of seeds and seedlings are carried back and forth between Chicago and San Diego.

**SILENT AUCTION**Most of presentation room, of what would be otherwise empty, had epicactus hybrid and species cuttings and plants for the Silent Auction. After the last presentation, the attendees collected what they had successfully bid on. There were a lot of choices, of which hybridizer Don Burnett had supplied a significant number.

## Highlights of Recent Meetings

By Keith Ballard

HIGHLIGHTS OF THE May 1st MEETING. Our May program featured black-forest-epis.de an online nursery by Germany's Bernhard Lingnau. In addition to epis, Bernhard has a large collection of aporocactus species and hybrids.



'Brilliant'



'Eugene'



(All photos copyrighted © Bernard Lingnau)



Disocactus flagelliformis



'Helmi Paetz'



'Melanie'



'Lucifer Paetz'



'Prof. Dr. Lenzen'



Disocactus x mallisoni



'Moonlight'



'Wendy'



'Orange Glow'



Unnamed (Gudrun)



'Sussex Pink'



'Concinna'

### The Bulletin

HIGHLIGHTS OF THE June 5th MEETING. The program for this meeting included 2 ESA officers, Jim Nones and Jeff Bates sharing their experiences at EpiCon in San Diego, as well as showing Janet Lai's highlight photos and video. Paul Richter, president of the South Bay Epiphyllum Society, showed the results of the SBES Flower Show held earlier in the month of May.

HIGHLIGHTS OF THE Jul. 3rd MEETING. Long time ESA member, Linda Sinkovic has created an epiphytic program focusing not only on *Rhipsalis* but other closely related genera. *Rhipsalis* originated in the jungle of Brazil. Also from South America, are *Lepismium*, *Hatiora*, *Rhisalidopsis* (Easter Cacti) and *Schlumbergera* (Christmas and Thanksgiving Cacti) these interesting flowers and plants that haven't been featured for quite a while. This program was presented by President Robert Kuettle. (Presentation © Linda Sinkovic, photos © Ralf Bauer unless otherwise noted).

Rhipsalis oblonga

photo tras page (s) Relf Baser



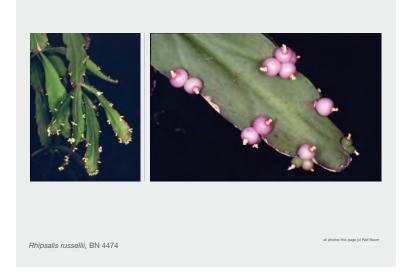




(I) Rhipsalis paradox ssp paradoxa
(m) Rhipsalis oblonga

(r) Rhipsalis clavata

all photos this page (c) Linda Sinkovic









Rhipsalis campos-portoana,

Bonn 3590

noto this page (c) Ralf Bauer

(l) Lepismium cruciforme (m) Hatiora salicornioides (r) Rhipsalis pachyptera

Il photos this page (c) Linda Sinkovic



















## ESA 59th Annual Show - Results

#### **SPECIAL AWARDS**

#### **Best Flower of Show**

#### **Galen Pittman Memorial Award:**

'Independence Rock' - Evelyn Shiraki, sec 3

#### **Best Epicactus XL Flower:**

'Mystic-Magic' - Evelyn Shiraki, sec. 12

#### President's Choice:

'Bret Johnson' - Derek Obayashi, sec. 1

#### Best Unnamed Seedling Ethel Hurst Award:

'Dijonnaise' x 'Shimmer' (K14-06) Robert Kuettle, sec.18

#### **Best Epicactus Flower under 5 inches:**

'Fumiko Kida' - Derek Obayashi, sec. 22

#### **Best Floral Arrangement:**

"Non Traditional" - Geneva Coats, sec. 33

#### **Best Plant:**

'South O' Border' x 'Big Apple' - (23-5) Darryl Miyamoto, sec. 40

#### **Best Photograph:**

'Yellow Tang' - Paul Richter, sec. 45

#### Best Display: All Exhibitors,

"ESA Best of Show Winners" Paul Richter, sec. 51

#### **TROPHY AWARDS**

#### Sweepstakes:

Nina Bashoura (132 points)

#### Galen Pittman Memorial Award for Best Flower in Show:

Evelvn Shiraki (sec 3)

#### **Division 1, Cut Flowers:**

1st Place: Robert Kuettle (106 points)
2nd Place: Nina Bashoura (102 points)
3rd Place: Derek Obayashi (66 points)
4th Place: Paul Richter (64 points)
Ethel Hurst Award for Best Unnamed
Epicactus Seedling: Robert Kuettle (sec 18)

#### **Division 2, Floral Arrangements:**

Geneva Coats (28 points)

#### **Division 3, Plants:**

Darryl Miyamoto (42 points)

#### **Division 4, Photographs:**

Paul Richter (24 points)

#### **Division 5, Displays:**

Paul Richter (14 points)

## DIVISION ONE - CUT FLOWERS CLASS 1. MEDIUM TO EXTRA LARGE

#### **Section 1 Predominantly White**

#### MEDIUM:

1st Place: 'Bret Johnson' Exhibitor: Derek Obayashi 2nd Place: 'Beyond Desire' Exhibitor: Robert Kuettle

3rd Place: 'Tofu' - Exhibitor: Robert Kuettle

#### **I ARGF**

1st Place: 'Lalique' Exhibitor: Nina Bashoura 2nd Place: 'Gardenia'

Exhibitor: Nina Bashoura

No Further Awards

#### **EXTRA LARGE:**

1st Place: 'White Peacock' Exhibitor: Jim Nones

#### Section 2 White with Other Color(s)

#### MEDIUM:

1st Place: 'Persian Lilac' Exhibitor: Robert Kuettle

2nd Place: 'Climax' - Exhibitor: Gail Grassl

3rd Place: 'Sunset Celebration' Exhibitor: Robert Kuettle

#### LARGE:

1st Place: Not Awarded

2nd Place: 'White Splendor' Exhibitor: Nina Bashoura

No Further Awards

#### **EXTRA LARGE:**

1st Place: 'Golden Pearl' Exhibitor: Evelyn Shiraki 2nd Place: 'Carbon County' Exhibitor: Evelyn Shiraki

No Further Awards

#### Section 3. Predominantly Yellow

#### **MEDIUM**

1st Place: 'Huell Howser's Gold' Exhibitor: Jim Nones

2nd Place: 'French Gold' Exhibitor: Paul Richter 3rd Place: 'French Gold'

Exhibitor: Paul Richter

#### LARGE:

1st Place: 'Yellow Tang' Exhibitor: Darryl Miyamoto

2nd Place: 'Don Crain' Exhibitor: Paul Richter 3rd Place: 'Kiwi Sunshine' Exhibitor: Paul Richter

#### **EXTRA LARGE:**

1st Place: 'Independence Rock' Exhibitor: Evelyn Shiraki 2nd Place: 'French Gold' Exhibitor: Robert Kuettle 3rd Place: 'French Gold' Exhibitor: Gail Grassl

#### Section 4 Yellow with Other Color(s)

#### **MEDIUM:**

1st Place: 'Ron Crain' Exhibitor: Derek Obayashi 2nd Place: 'Humdinger' Exhibitor: Nina Bashoura 3rd Place: 'Liberty Glow' Exhibitor: Nina Bashoura

Hon Men: 'Chiba Lovely Dawn'

Exhibitor: Jeff Bates

#### LARGE:

1st Place: 'Acapulco Sunset' Exhibitor: - Robert Kuettle 2nd Place: 'White Splendor' Exhibitor: Nina Bashoura

No Further Awards

#### **EXTRA LARGE:**

No Entries

#### **Section 5 Predominantly Orange**

#### **MEDIUM:**

1st Place: 'Hedgehog' Exhibitor: Darryl Miyamoto 2nd Place: 'Persian Tiger' Exhibitor: Gail Grassl 3rd Place: 'Spring on Mars'

Hon Men: 'Three Oranges' Exhibitor: Janet Lai

Exhibitor: Nina Bashoura



LARGE:

1st Place: 'Tropical Splendor' Exhibitor: Nina Bashoura 2nd Place: - 'Southern Charm'

Exhibitor: Jeff Bates
3rd Place: 'Abendsonne'
Exhibitor: Robert Kuettle

**EXTRA LARGE:** 

1st Place: 'Orangutan' Exhibitor: Darryl Miyamoto

2nd Place: 'Grizzly' - Exhibitor: Robert Kuettle

3rd Place: 'Zeus' - Exhibitor: Robert Kuettle Hon Men: 'Tele' - Exhibitor: Robert Kuettle

Section 6 Orange with Other Color(s)

**MEDIUM:** 

1st Place: 'Three Oranges' Exhibitor: Robert Kuettle 2nd Place: 'Stern Von Erlau'

Exhibitor: Nina Bashoura 3rd Place: 'Kiwi Fellowship' Exhibitor: Gary Brandfellner'

Hon Men: 'Ferris Wheel'
Exhibitor: Robert Kuettle

LARGE:

1st Place: 'Super Duper' Exhibitor: Robert Kuettle

2nd Place: 'Capetown' Exhibitor: Richard Klug

3rd Place: 'Over the Top' Exhibitor: Keith & Pat Ballard

Hon Men: 'King Midas' Exhibitor: Nina Bashoura

**EXTRA LARGE:** 

1st Place: 'Indiscreet' - Exhibitor: Jim Nones

2nd Place: 'Follow Your Heart' Exhibitor: Nina Bashoura

No Further Entries

**Section 7 Predominantly Red** 

**MEDIUM:** 

1st Place: 'Epi Society' Exhibitor: Paul Richter

No Further Entries

LARGE:

1st Place: 'Tabasco' - Exhibitor: Robert Kuettle

2nd Place: 'Eli Obidiah' Exhibitor: Robert Kuettle 3rd Place: 'Turbo'

Exhibitor: Keith & Pat Ballard

**EXTRA LARGE:** 

1st Place: 'Ivan the Terrible' Exhibitor: Keith & Pat Ballard

2nd Place: 'Calico Queen' Exhibitor: Robert Kuettle

No Further Awards

Section 8 Red with Other Color(s)

MEDIUM:

1st Place: 'Shimmer' - Exhibitor: Paul Richter

2nd Place: 'Becki Konishi' Exhibitor: Derek Obayashi

No Further Awards

LARGE:

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

2nd Place: 'Brazen'

Exhibitor: Darryl Miyamoto 3rd Place: 'Round Table' Exhibitor: Nina Bashoura

Hon Men: 'Kevin' - Exhibitor: Nina Bashoura

**EXTRA LARGE:** 

1st Place: 'Luminous' - Exhibitor: Paul Richter 2nd Place: 'Masada' - Exhibitor: Jeff Bates

3rd Place: 'Flying Silk'
Exhibitor: Robert Kuettle
Hon Men: 'Bertha Talbot Loose'

Exhibitor: Keith & Pat Ballard

**Section 9 Predominantly Pink** 

**MEDIUM:** 

1st Place: 'June Esther Hughes' Exhibitor: Robert Kuettle

2nd Place: 'Argus' - Exhibitor: Janet Lai

3rd Place: 'Gail Grassl' - Exhibitor: Gail Grassl Hon Men: 'Padre' - Exhibitor: Nina Bashoura

LARGE:

1st Place: 'Vanilla Sunset' Exhibitor: Paul Richter

2nd Place: 'Fusae Nakanishi' Exhibitor: Derek Obayashi 3rd Place: 'Royal Hawaiian' Exhibitor: Nina Bashoura

**EXTRA LARGE:** 

Hon Men: 'Doris W Pittman' Exhibitor: Robert Kuettle

No Further Awards

Section 10 Pink with Other Color(s)

**MEDIUM:** 

1st Place: 'Argus' - Exhibitor: Nina Bashoura

2nd Place: 'Pink Champagne' Exhibitor: Nina Bashoura

No Further Entries

LARGE:

1st Place: 'Breeze' - Exhibitor: Evelyn Shiraki

2nd Place: 'Pacific Dawn' Exhibitor: Robert Kuettle 3rd Place: 'Don's Chantilly Lace' Exhibitor: Paul Richter

**EXTRA LARGE:** 

No Entries

Section 11. Predominantly Purple & Lavender

**MEDIUM:** 

1st Place: 'Stina D' - Exhibitor: Nina Bashoura

2nd Place: 'Juliana Obayashi' Exhibitor: Derek Obayashi 3rd Place: 'Royal Renaissance' Exhibitor: Paul Richter

LARGE:

1st Place: 'Fantasy Dragon' Exhibitor: Paul Richter

2nd Place: 'True Gypsy' - Exhibitor: P. Wong

3rd Place: 'Becky Obayashi ' Exhibitor: Derek Obayashi

**EXTRA LARGE:** 

1st Place: 'The Messiah' - Exhibitor: Jim Nones

2nd Place: 'Beijing'

Exhibitor: Darryl Miyamoto

No Further Entries

Section 12 Purple & Lavender with Other Color(s)

**MEDIUM:** 

1st Place: 'Sherman E. Beahm' Exhibitor: Nina Bashoura 2nd Place: 'Eye Opener' Exhibitor: Keith & Pat Ballard

No Further Entries

LARGE:

1st Place: 'Flaming Gorge' Exhibitor: Paul Richter 2nd Place: 'Star of Persia' Exhibitor: Paul Richter

3rd Place: 'Show Off' - Exhibitor: Paul Richter



#### **EXTRA LARGE:**

1st Place: 'Mystic Magic' Exhibitor: Evelyn Shiraki

2nd Place: 'Tropical Treasure' Exhibitor: Darryl Miyamoto

3rd Place: 'Pronghorn' Exhibitor: Darryl Miyamoto

#### **Section 13 Colors & Combinations** Difficult to Define

#### MFDIUM:

1st Place: 'Jan Sumpter' Exhibitor: Derek Obayashi 2nd Place: 'Sunrise Sunset' Exhibitor: Nina Bashoura

No Further Entries

#### LARGE:

1st Place: 'Emmett Kelly' Exhibitor: Nina Bashoura

2nd Place: 'Follow Your Heart' Exhibitor: Nina Bashoura

No Further Entries

#### **EXTRA LARGE:**

1st Place: 'Sunrise Sensation' Exhibitor: Robert Kuettle

No Further Entries

#### **CLASS 2. UNNAMED SEEDLINGS**

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

1st Place: 'Yavapai County' x 'Meadowlark'

Exhibitor: Evelyn Shiraki

2nd Place: 'Bertha T. Loose' x 'French Gold'

Exhibitor: Janet Lai

3rd Place: 'Camp Robber' x ' Yavapai County'

Exhibitor: Evelyn Shiraki

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

1st Place: 'Hedge Hog' x 'Yellowhead' Exhibitor: Darryl Miyamoto

2nd Place: 'Chardonnay Twist' Ex Nat, (2011-4)

Exhibitor: Derek Obayashi

3rd Place: 'Red Chrome' x 'Yellow Tang' Exhibitor: Evelyn Shiraki

Hon Men: Unknown Watts Cross ('Pineapple Express') - Exhibitor: Robert Kuettle

#### Section 16. Predominantly Orange & **Orange with Other Colors**

1st Place: 'Dijonnaise' x 'Shimmer' (K14-06) Exhibitor: Robert Kuettle

2nd Place: 'American Sweetheart' x 'Falling In Love' - Exhibitor: Gary Brandfellner

3rd Place: 'Red Chrome' x 'Yellow Tang' (67-8)

Exhibitor: Evelyn Shiraki

Hon Men: 'Ivan the Terrible' x 'Whatta Dream'

Exhibitor: Richard Klug

#### Section 17. Predominantly Red & **Red with Other Colors**

1st Place: 'Reward' x 'Oro' Exhibitor: Jerry Moreau

2nd Place: 'Hedhog' x 'Turbo' Exhibitor: Evelyn Shiraki

3rd Place: 'Dijonnaise' x 'Shimmer' (K14-14)

Exhibitor: Robert Kuettle

Hon Men: 'Awesome' x 'Dijonnaise' (K06-06)

Exhibitor: Robert Kuettle

#### Section 18. Predominantly Pink & **Pink with Other Colors**

1st Place: 'Dijonnaise' x 'Shimmer' (K14-20)

Exhibitor: Robert Kuettle

2nd Place: 'Dijonnaise' x 'Shimmer' (K14-22)

Exhibitor: Robert Kuettle

3rd Place: 'Dijonnaise' x 'Shimmer' (K14-18)

Exhibitor: Robert Kuettle

Hon Men: 'Dijonnaise' x 'Shimmer' (K14-23)

Exhibitor: Robert Kuettle

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

1st Place: 'Falling in Love' x 'Oberon'

Exhibitor: Derek Obayashi

2nd Place: 'Go Go Girl' x 'Mandi Knaras'

Exhibitor: Derek Obayashi 3rd Place: Unk x 'Shimmer' Exhibitor: Jim Nones

Hon Men: 'Shimmer' x 'Flaming Gorge' (4-8)

Exhibitor: Paul Richter

#### **Section 20. Color Combinations** Difficult to Define

1st Place: 'Shimmer' x 'Flaming Gorge'

Exhibitors: Paul Richter

2nd Place: 'Falling In Love' x 'Pat Neal'

Exhibitor: Derek Obayashi

3rd Place: 'Dijonnaise' x 'Shimmer' (K14-24)

Exhibitor: Robert Kuettle

Hon Men: 'Clown' x 'Lavender Marshmallow'

Exhibitor: Derek Obayashi

#### **CLASS 3. SMALL & EXTRA SMALL**

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

1st Place: 'Lydia' - Exhibitor: Nina Bashoura

2nd Place: 'Abracadabra' Exhibitor: Derek Obayashi 3rd Place: 'Elmira Paetz' **Fxhibitor: Robert Kuettle** Hon Men: 'Kay Matsumiya' Exhibitor: Derek Obayashi

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

1st Place: 'Fumiko Kida' Exhibitor: Derek Obayashi

No Further Entries

#### **CLASS 4. ESA HERITAGE EPICACTUS FLOWERS**

#### Section 23. All Colors and Sizes

No Entries

#### **CLASS 5. SHOWCASED HYBRIDIZERS FOR 2016 - EVELYN SHIRAKI & DARRYL MIYAMOTO**

#### Section 24. All Colors and Sizes

1st Place: 'Love It' - Exhibitor: Evelyn Shiraki

2nd Place: 'Indepedence Rock' Exhibitor: Evelyn Shiraki 3rd Place: 'Crystal Flash' Exhibitor: Keith & Pat Ballard Hon Men: 'Indepedence Rock' Exhibitor: Keith & Pat Ballard

#### **CLASS 6. EPIPHYTIC CACTUS SPECIES** Section 25. All Colors and Sizes

1st Place: 'Kimchinjunga' Exhibitor: Nina Bashoura

No Further Entries

#### **CLASS 7. COLLECTIONS**

#### Section 26. Three of a Kind

1st Place: 'Germania' - Exhibitor: Jerry Moreau

2nd Place: 'Sandra Chapin' Exhibitor: Derek Obayashi

3rd Place: 'Beijing'

Exhibitor: Darryl Miyamoto

Hon Men: 'Padre' - Exhibitor: Nina Bashoura

#### Section 27. 3 Or More Blooms of One **Cultivar On A Cut Stem**

1st Place: 'Spring on Mars' Exhibitor: Nina Bashoura

No Further Entries



#### Section 28. Common Denominator. 3 Or More Blooms Of One Cultivar, with Unifying Factor, Which Must Be Stated.

1st Place: 'Sparkle' - Exhibitor: Geneva Coats No Further 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: "Moribana" - Exhibitor: Geneva Coats

No Further Entries

## Section 30. More than One Epicactus or Epiphytic Species Flowers

No Entries

#### CLASS 9. TRADITIONAL & NON-TRADITIONAL CONTAINERS. ACCESSORIES REQUIRED, FRESH OR DRIED PLANT MATERIALL

Section 31. One Epicactus or Epiphytic Species Flower. Traditional Container.

1st Place: Unknown

Exhibitor: Keith & Pat Ballard

## Section 32. More than One Epicactus or Epiphytic Species Flower. Traditional Container.

1st Place: 'Tofu' - Exhibitor: Keith & Pat Ballard

No Further Awards

#### CLASS 10. NON-TRADITIONAL CONTAINERS SUCH AS WOOD, DRIFTWOOD, STONE, GLASS, ETC. ANY PLANT MATERIAL, FRESH OR DRIED MAY BE USED.

#### Section 33. One Epicactus or Epiphytic Species Flower. Non-Traditional Container.

1st Place: "Non Traditional" Exhibitor: Geneva Coats

2nd Place: Unk - Exhibitor: Charleen Rice 3rd Place: "Tuscany" - Exhibitor: Geneva Coats

No Further Awards

## Section 34. More than One Epicactus or Epiphytic Species Flowers. Non-Traditional Container:

1st Place: 'Over The Top' Exhibitor: Keith & Pat Ballard

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: "I'm Having a Ball With My Epi". Exhibitor: Keith & Pat Ballard

No Further Entries

### Section 36. Show Theme: "Flower Power"

1st Place: Name: "Earth Day Every Day"

Exhibitor: Geneva Coats

No Further Entries

#### **DIVISION THREE - PLANTS**

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

#### Section 37. Registered hybrid hanging.

1st Place: 'Debra Cartwright' Exhibitor: Jeff Bates

No Further Entries

## Section 38. Registered hybrid staked, trellised or pedestal plants.

1st Place: 'Immortal' Exhibitor: Darryl Miyamoto 2nd Place: 'Crystal Amethyst' Exhibitor: Darryl Miyamoto 3rd Place: 'Vanilla Sunset' Exhibitor: Darryl Miyamoto

No further Awards

#### Section 39. Unnamed hybrid hanging.

1st Place: Unk x Nat - Exhibitor: Ed Imlay 2nd Place: 'Bertha Tabot' x 'French Gold'

Exhibitor: Janet Lai No Further Entries

## Section 40. Unnamed hybrid staked, trellised or pedestal plants.

1st Place: 'South O Border' x 'Big Apple' (23-5)

Exhibitor: Darryl Miyamoto

2nd Place: 'Evening Delight' x 'Pink Plumes'

Exhibitor: Darryl Miyamoto

No Further Entries

## **CLASS 13. EPIPHYTIC CACTUS SPECIES PLANTS.**

Section 41. Epiphyllum Species from the genera *Epiphyllum, Disocactus, Hylocereus, Selenicereus, Strophocactus* 

## & Weberocereus, in hanging containers:

No 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: *R. baccifera*Exhibitor: Nina Bashoura
2nd Place: *R. pentaptera*Exhibitor: Nina Bashoura

3rd Place: *R. baccifera*Exhibitor: Nina Bashoura

Hon Men: *R. rhombea* Exhibitor: Nina Bashoura

No Further Entries

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

1st Place: R.baccifera Exhibitor: Nina Bashoura

No Further Entries

## DIVISION FOUR - PHOTOGRAPHS CLASS 14 REPRESENTATIONAL STYLE.

## Section 45. Registered Epiphytic Cacti and "Holiday" Cactus.

1st Place: 'Yellow Tang' Exhibitor: Paul Richter

2nd Place: 'Padre' - Exhibitor: Geneva Coats

3rd Place: 'Camp Robber' Exhibitor: Geneva Coats Hon Men: 'Rose Parade' Exhibitor: Geneva Coats

#### Section 46. Epiphytic Cactus species.

1st Place: "Bumble Bee" - Exhibitor: Jim Nones

2nd Place: "Epi Closeup" Exhibitor: Paul Richter No Further Entries



#### **CLASS 15 ABSTRACT STYLE.**

## Section 47. Subject Matter relating to Epiphytic Cacti

1st Place: Selenicereus macdonaldiae

Exhibitor: Jim Nones

2nd Place: "Dragon Fruit" Exhibitor: Paul Richter 3rd Place: "Dragon Fruit" Exhibitor: Paul Richter

No Further Entries

CLASS 16 HORTICULTURE RELATED Section 48. Individual Exhibitors

No Entries:

**Section 49. Societal Exhibitors** 

1st Place: San Diego Epiphyllum Society

**Section 50. Commercial Exhibitors**No Entries

CLASS 17 EDUCATIONAL DISPLAYS Section 51. All Exhibitors:

1st Place: "ESA Best of Show Winners"

Exhibitor: Paul Richter

Section 52 Six(6) or more photographs organized into a photographic display

No Entries

## ESA Award Winners

Photos are courtesy of Terence Brashear unless otherwise noted



**Special Ribbon Award Winners** 



Galen Pittman Memorial Award: 'Independence Rock' - Evelyn Shiraki



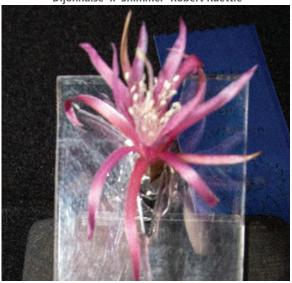
Best Epicactus XL Flower: 'Mystic-Magic' - Evelyn Shiraki



President's Choice: 'Bret Johnson' - Derek Obayashi



Best Unnamed Seedling Ethel Hurst Award: 'Dijonnaise' x 'Shimmer' Robert Kuettle



Best Epicactus Flower under 5 inches: 'Fumiko Kida' - Derek Obayashi

## 1st Place Winners



'Lalique' Exhibitor: Nina Bashoura



'White Peacock' Exhibitor: Jim Nones



'Persian Lilac' Exhibitor: Robert Kuettle



'Golden Pearl' Exhibitor: Evelyn Shiraki



'Huell Howser's Gold' Exhibitor: Jim Nones



'Yellow Tang' Exhibitor: Darryl Miyamoto



'Ron Crain' Exhibitor: Derek Obayashi



'Acapulco Sunset' Exhibitor: Robert Kuettle



'Hedgehog' Exhibitor: Darryl Miyamoto



'Tropical Splendor' Exhibitor: Nina Bashoura



'Orangutan' Exhibitor: Darryl Miyamoto



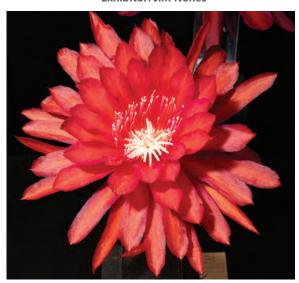
'Three Oranges' Exhibitor: Robert Kuettle



'Super Duper' Exhibitor: Robert Kuettle



'Indiscreet' Exhibitor: Jim Nones



'Epi Society' Exhibitor: Paul Richter



'Tabasco' Exhibitor: Robert Kuettle



'Ivan the Terrible' Exhibitor: Keith & Pat Ballard



'Shimmer' Exhibitor: Paul Richter



'Turbo' Exhibitor: Evelyn Shiraki



'Luminous' Exhibitor: Paul Richter



'June Esther Hughes' Exhibitor: Robert Kuettle



'Vanilla Sunset' Exhibitor: Paul Richter



'Argus' Exhibitor: Nina Bashoura



'Breeze' Exhibitor: Evelyn Shiraki



'Stina D' Exhibitor: Nina Bashoura



'Fantasy Dragon' Exhibitor: Paul Richter



'The Messiah' Exhibitor: Jim Nones



'Sherman E. Beahm' Exhibitor: Nina Bashoura



'Flaming Gorge' Exhibitor: Paul Richter



'Jan Sumpter' Exhibitor: Derek Obayashi



'Emmett Kelly' Exhibitor: Nina Bashoura



'Sunrise Sensation' Exhibitor: Robert Kuettle



'Yavapai County' x 'Meadowlark' Exhibitor: Evelyn Shiraki



'Hedge Hog' x 'Yellowhead' Exhibitor: Darryl Miyamoto



'Reward' x 'Oro' Exhibitor: Jerry Moreau



'Dijonnaise' x 'Shimmer' (K14-20) Exhibitor: Robert Kuettle



'Falling in Love' x 'Oberon' Exhibitor: Derek Obayashi



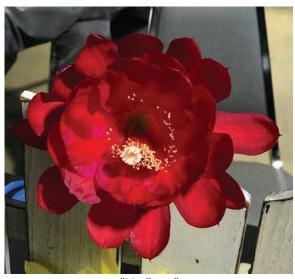
'Shimmer' x 'Flaming Gorge' Exhibitors: Paul Richter



'Lydia' Exhibitor: Derek Obayashi



'Love It' Exhibitor: Evelyn Shiraki



"Moribana" Exhibitor: Geneva Coats



Unknown Exhibitor: Keith & Pat Ballard



"Non Traditional" Exhibitor: Geneva Coats



'Over The Top' Exhibitor: Keith & Pat Ballard



"I'm Having a Ball With My Epi" Exhibitor: Keith & Pat Ballard



"Earth Day Every Day" Exhibitor: Geneva Coats



'South O Border' x 'Big Apple' (23-5) Exhibitor: Darryl Miyamoto



## Why Repotting is Necessary

#### By Keith Ballard

Species epiphyllums live and flourish in the rainforests of Mexico, Central and South America. They typically live in fallen rotting leaves and bird droppings in the crotch of a tree. This situation provides perfect water drainage. Plants are automatically supplied with newly fallen leaves and fresh bird droppings. This is the environment we are trying to simulate for our hybrid epies.

We know that good planting mixes should be porous to start with and should not pack down readily. However with time and watering, all mixes will eventually break down. When this happens, some roots will no longer receive any water and will start to rot. We also know an epi left in the same mix for a very long time (even with added fertilizer) will eventually use all the minor nutrients. Then the epi will decrease or stop blooming and growing, look sickly and eventually turn a yellowish color. Therefore, an epi should be repotted well before either condition might occur.But there are other reasons to repot — maybe the plant has gotten too big for its container, or the plant is not growing or blooming.

So if one must repot, what's the best time to do it and the best mix to use? The best time is now, just after the blooming season. This gives the repotted plant the most time to recover before next blooming season. In milder climates, and if one is willing to forgo blooming the next spring, one can continue to repot until the weather really gets cold.

The choice of best mix is more complicated, as many epi growers make their own what they consider the "best" mix, and they often disagree with others' "best" mix, at least in part.

Epi mixes vary widely. There is the simple combination of a good commercial azalea mix with perlite (about 1/3 by volume of the azalea mix) added to the azalea mix. At the other extreme are the many complicated epi mixes generated by epi growers over the years. Whichever mix you choose, you should avoid the inclusion of a lot of peat moss — if the peat moss ever gets dry, it is almost impossible to rewet without submerging the entire pot in water. Table 1 includes some sample member created potting mixes from *Bulletin: Vol. XL, No.1* and Table 2 a list of ingredients, and why they were included, that members have used in various mixes in the past. Notice all the mixes of Table 1 include leaf mold.

All mixes should be thoroughly mixed together, slightly dampened and stored for use. Generally, the longer they are stored the better, so try to keep a supply mixed before it is actually needed.

I grow epies for the flowers (as most collectors do) and I am trying to maximize the number of flowers on a given plant. To get some data on the quantity of bloom for each year and each plant, I first remove the non-viable small buds (that is those buds that have an overall reddish color and will fall off at the slightest touch). Then I record for each plant:

- 1) the date the first bloom opens
- 2) the number of near opening buds
- 3) if there are also viable very small buds I record ½ of those.

Some trends in the blooming data I have noticed are as follows:

- 1) Starting in the 2nd year after repotting, the number of blooms will drop by one (or less often two) from the number of blooms of the preceding year. And in each of the following years the number of blooms will drop by usually one.
- 2) A less common trend occurs in about the 4th year: the number of blooms increase, sometimes doubling. However the following year there may be only a single flower.Perhaps this is an "appeal" by the plant to be repotted?

To avoid the possibility of mix over-compaction and with the described above blooming trends I have chosen, as a compromise, to repot automatically on 5 year intervals for all my plants. There are two exceptions:

- 1) If the number of blooms of a plant has dramatically increased over the previous year, that plant gets repotted in the current year.
- 2) If a plant "looks bad", it gets repotted as soon as possible.

Mv mix is

2 parts LGM General Purpose Potting Soil

1 Part Leaf Mold

1 1/2 parts Perlite

1 part orchid bark

plus ½ cup per 5 gal of mix of the personal mix of fertilizer I have described in previous Bulletins.

## Table 1: Sample of Older Potting Mixes

Here are a few older sample formulas for potting mix, some very simple, others more complicated:

- #1 3 parts leaf mold or light humus
  - 1 part coarse river sand
  - 1 part old cow manure
  - 1/2 cup bone meal
- #2 1 bucket good planting mix
  - 1 bucket leaf mold or compost
  - 1 bucket sponge rock
  - 1 bucket small redwood bark
  - 1 cup bone meal
  - 1 cup superphosphate
  - 1/2 cup garden sulfur



- #3 4 parts top soil
  - 4 parts leaf mold
  - 2 parts pumice
  - 1 part charcoal
- #4 1 bucket each of:

decomposed granite

oak leaf mold

sponge rock

old manure

plus one 4-inch pot each of:

sulfur

charcoal

bone meal

- #5 4 buckets leaf mold
  - 2 buckets manure
  - 1 bucket redwood bark
  - 1 bucket sponge rock
  - 2 cups sulfur
  - 2 cups bone meal
  - 1 cup superphosphate
  - 1 cup tobacco dust
- #6 1 part cymbidium orchid mix
  - 1 part leaf mold
  - 1 part small fir bark
  - 1 part sponge rock
- #7 Equal parts:

leaf mold

sponge rock

wood shavings

horticultural charcoal

#8 Equal parts:

soil

leaf mold

pumice rock or fine sponge rock

charcoal

- #9 4 buckets potting soil
  - 1 bucket leaf mold
  - 1 bucket vermiculite
  - 1 bucket crushed charcoal
  - 1 bucket peat moss
  - 1 cup bone meal
  - 1/2 cup sulfur
- #10 4 buckets leaf mold
  - 1 bucket well aged manure
  - 1 bucket sponge rock
  - 1 bucket fine redwood bark
  - 1 bucket organic charcoal
  - 2 cups bone meal
  - 2 cups garden sulfur

- #11 3 buckets planter mix
  - 1 bucket leaf mold or compost
  - 1 bucket aged manure
  - 1 bucket sponge rock
  - 1 bucket small bark
  - 1 cup bone meal
  - 1 cup superphosphate
  - 1 cup cottonseed meal
  - 1 cup hoof and horn meal
  - 1/2 cup sulfur

## Table 2: Why the Listed Ingredient Was Used in a Epi Mix

**Leaf Mold** – Partially decomposed leaves, usually from oak trees. Well composted, it adds slight acidity to the mix.

**Humus** —An organic material formed by the decay of vegetable matter. It is very slightly acid.

**Coarse sand** — Used to add weight to the mix and to anchor the roots. Its structure allows for air circulation and good drainage. Too much sand will let the mix become too dry, sand does not hold water. Only river sand should be used, beach sand contains salt.

**Bone meal** – A slow acting fertilizer, low in nitrogen, high in phosphoric acid, which aids the plant in assimilating its food, and in the formation of cell structure. Composition is 0.5-15-0

**Sponge rock (Perlite)** – A volcanic mineral heated to 1800 degrees F, causing it to expand and become porous. Provides excellent drainage, traps air and water around its irregular surfaces. Contains no nutrients, its primary function is to increase aeration, allowing free movement of air and water in the mix.

**Superphosphate** – Has a guaranteed analysis of available phosphoric acid, 0-20-0. It will help develop stems, flowers, buds and seeds. Can be used in the mix, also added as a pinch on top of the soil before watering. Use sparingly, and don't let it touch the plant.

**Pumice** – Cellular volcanic lava, good for drainage. Difficult to find and expensive.

**Charcoal** – Granular charcoal is useful in keeping the soil "sweet" and coarse. Roots cling to it, but it is not a plant food.

**Manure** – Cow manure is low in nutrients with a composition of 1-1-1. However, it is a good all-purpose fertilizer because it stimulates bacterial and other activity when used in the mix as a soil conditioner. It should be thoroughly composted so there is no heat in it, otherwise it will burn the roots. Purchased manure should be already composted and weed free.

**Tobacco dust** – Used for the nicotine content as a fungicide.



**Silt and/or soil** — Silt is very fine soil found in river beds and lakes. Good silt is hard to find. Garden soil is rarely used in California, because of the danger of introducing nematodes.

**Cottonseed meal** – An all-organic product, containing nitrogen, phosphoric acid and potash in a ratio of 6.4-1.5-1. Very useful where an acid condition is desired.

**Hoof and Horn meal** – A rich organic source of nitrogen, produces steady growth and green foliage. It can be used in the mix and added to established plants on top of the soil, watered in. Use sparingly.

**Peat moss** – Available in many forms, from "green" moss to very fine (almost powdered). When used in potting mix, you have to learn to strike a happy medium in watering. It retains ten times its weight in water, but if it is ever allowed to dry out, the only way to re-wet it is by submersion. It contains no available nutrients.

**Sulfur** – Soil sulfur is generally used to reduce an alkaline soil condition. Absence of sulfur or iron is indicated by branches turning yellow. A good test to determine the lack of either of these minerals is to spray plants with a foliar feeding of a soluble plant food (such as Rapid-Gro or Miracle-Gro). If this produces a noticeable improvement, apply some to the soil, following the manufacturers directions for use in the soil.

**Compost** – A combination of vegetative material such as grass clippings, leaves, garden trimmings, almost anything. Must be allowed to decompose until there is no heat left in it before it is ready for use. Depending on the process used for decomposition, it may take anywhere from six months to a year and a half before it is ready to use in potting mix.

**Vermiculite** – Expanded mica, containing no nutrients. As with peat moss, you must learn to water properly or the mix will remain too wet.

## Some Reflections on Leaf Mold

By Keith Ballard

#### **BACKGROUND**

Leaf mold is nothing more than partially decomposed leaves that are somewhere along the continuum between shredded leaves and humus. It starts by looking like rotting leaves and ends up as a mushy, crumbly brown material with a pleasant, earthy scent. Humus is a general plant food, but it doesn't give an epiphyllum the boost it needs for peak performance in growth and flowering that leaf mold provides.

Leaf mold has several great attributes. The first is that it can hold up to 500 percent of its own weight in water. Besides helping retain moisture in the soil by reducing evaporation, leaf mold also absorbs rainwater to reduce runoff. In hot weather, it helps cool roots and foliage.

Most leaves are slightly acidic when they fall, with a pH below 6. However, as the leaves break down into leaf mold, the pH goes up into the more neutral range.

Over time, leaf mold mulch can also significantly improve the quality of your soil. The result will be better water-holding capacity, a more friable texture, and an increase in beneficial soil life.

Unlike making regular compost, making leaf mold is a "cold" composting process. The decomposition is done primarily by fungi, rather than bacteria, and it is considerably slower, taking about 3 years before becoming useable.

#### **APPLICATION**

The fact that the leaf mold in our epi mixes is changing and probably degrading over time has been overlooked by many epi growers. With time, the leaf mold we include in our planting mix is changing into humus, becoming less acidic and less effective! As an example, a few years ago the bag of leaf mold I bought was for the most part clearly partly rotting leaves. I later observed that the next year's flowers from plants repotted with that leaf mold were bigger, more numerous and stronger than usual. Also perhaps the decreasing number of flowers with the passing of the years (discussed in the article on repotting in this Bulletin) could be caused by the degradation of the leaf mold? This is one more reason to repot regularly, in order to provide the plant with fresh leaf mold.

We obtain our leaf mold in one of two ways: we buy it, or we make it.

**Buying Leaf Mold.** Most of us will have to buy our leaf mold. But how to find some that is near the start of the decomposition cycle? Squeeze the bag! If it feels like mush it probably is mush. It's a bag of humus and near the end of the cycle. Reject that bag. If the bag has lumps like the stems of leaves, that's a bag of rotted leaves closer to the start of the cycle. Accept that bag.

Making Leaf Mold. If you are lucky enough to have a source of the right type of leaves, you might consider making your own leaf mold (Both Galen Pittman and Ed Beardsley did.) The first consideration is the kind of leaves. Oak and holly are higher in lignin (cellulose) than others, and therefore take much longer to break down. The usual choice for epies is oak leaves. However, combining different types of leaves (like a mixed salad) is a good way to balance lignin content and also improve the quality of the finished product.



Moisture is another factor to keep in mind. Remember that fungi are doing the work, and they need a moist environment. An unattended pile of dry leaves could take three years or more to break down. Keep the pile covered and moist (not wet) and you may have ready-to-use leaf mold in a year.

Another consideration is nitrogen. Freshly fallen leaves have a carbon-to-nitrogen ratio in the range of 30 to 1, which is ideal for quick decomposition. Old leaves, including those that have been on the ground for just a few weeks, will have already lost most of their nitrogen content. If you can gather fresh leaves and get the process underway, there will still be a good amount of nitrogen to speed up the initial decomposition.

The easiest way to make leaf mold is to just rake your leaves into a big pile and let the pile sit there for two or three years. If you aren't quite that patient or you don't have enough room for three giant leaf piles, you'll need to shred them. Leaves break down much more quickly if they're shredded, largely because it increases the amount of surface area, which makes it easier for fungi to do their work. Shredding the leaves also prevents them from packing together into stacks that repel moisture and seal out air. It also makes it easier to fit a large quantity of leaves into a relatively small space.

The simplest way to shred leaves is to run over them with the lawn mower a few times and then rake them up. You can also rake the leaves and run them through a leaf shredder. Or use a hand-held leaf vacuum with a shredding capability. A leaf pile needs to be fairly substantial in size in order to retain enough moisture and heat to get finished leaf mold within 12 months. Six feet square and five feet high seems to be an ideal size. It takes about 25 trash bags full of leaves to make a pile this large.

A second option is to pile the leaves into a wood or wire enclosure. Five feet square is ideal. If you live in a dry climate, first line the enclosure with cardboard or plastic to help retain moisture. Wet the pile thoroughly and cover it with a tarp. Check the moisture level several times during the year. It should be like a well-wrung sponge. While you're checking the moisture content, use a fork to stir the leaves and incorporate a little fresh oxygen.

Another easy, yet very effective way to make leaf mold, is to pack the leaves into black trash bags. If the leaves are fresh and shredded, just moisten them, close up the bag, and poke a few holes in the sides of the bag. If the leaves are whole or dry, moisten them well and add a shovelful of garden soil, compost or manure. Then stash the bags out of the way for a year or two.

Note: Gardener's Supply (www.gardeners.com) is a good place to find leaf shredders, leaf vacuums and wire enclosures.

# Growing Epies in Perth, Western Australia.

By Steve Pincott

We have a good climate here for outdoor growing all year round. It does get very hot in summer, over 40°c, so a second covering of shade cloth is required for 2 or 3 months which is then removed before winter.

It gets cold and wet during the winter months, never to freezing point or even near that, so established plants that are big and root-bound handle it okay.

Smaller, newer epis sometimes need to be moved under an eave or similar out of the rain.

At present we are at the end half of winter and I don't have too many casualties that I can see. Blooming season is just around the corner!

I first came across these plants about 30 years ago when a lady I was working with gave me cuttings of 'German Empress' and Ackermanii with blooms attached. They seemed so unusual. I had no idea what to do with them. I planted both in a 14 inch basket in potting mix. Somehow they managed to grow!

As with most new epi fans I then wanted to collect every one available. These days I am much more selective of course, and have hybridised and registered a few nice ones.

We have always had an Epiphyllum and Hoya society here, but in the last few years it has really taken off and we now have a membership of 50 or more.

As the other societies have folded we are now the only one in Australia. I must say it has become a bit Hoya-centric lately but I have decided to grow almost exclusively epies.

There are so many magnificent new hybrids from this side of the globe, notably the Brunton's 'Kiwi' ones and Tony Hanson's 'Ulana' hybrids.

I have no idea how many plants I have but I have 3 large shadehouses crammed full, so it is a fair few! My passion for these plants has not waned much over the years.

They certainly are addictive so if you are a beginner...be warned!



Two of Steve's hybrids: left - 'Black Pearl'; right - 'Karen Michelle'



## Why Are There No Blue Epiphyllums?

By Keith Ballard

There are some plants with blue flowers such as Delphinium, Hibiscus and the Morning Glory, and the color blue is common in all sorts of things. So why are there no blue epiphyllums? Actually blue is rare in living nature as it is a color that is associated with organic molecules in an alkaline conditions, and few living systems have an alkaline chemistry. The morning glory flower, for instance, starts off the day an intense cerulean, fading to an insipid mauve at sundown as the alkalinity in the flower decreases. But epies have an acidic nature, so a blue epi is just not to be.

Some facts about the color blue:

- President Martin Van Buren is credited with introducing blue into the decorating scheme of the White House in 1837 and since then, there has been a "blue room" in the White House.
- Blue is the favored color choice for toothbrushes.
- Powder blue is often used in products to promote cleanliness and purity.
- IBM's Deep Blue became the first computer to win a chess tournament against a reigning world champion chess master.
   Deep Blue had 32 processors and processed about 200 million chess moves per second in its historic six-game match against Garry Kasparov. Today, Blue Gene is the fastest supercomputer in the world and the descendent of Deep Blue. It uses 131,000 processors to routinely handle 280 trillion operations every second.
- The blue ribbon has been widely used to denote first place in a competition or contest.
- Over the past decade, scientists have reported the successful use of blue light in the treatment of a wide variety of psychological problems, including addictions, eating disorders, impotence, and depression.
- People are often more productive in blue rooms.
- The highest quality ultramarine blue is made with powdered lapis lazuli from Afghanistan.
- The 1993 film "Blue" consists entirely of the color blue with narration and sound bytes.
- "Alice Blue" is a light blue-gray or steel blue color that was favored by Alice Roosevelt Longworth, daughter of Theodore Roosevelt; it sparked a fashion sensation in the United States.
- Mosquitoes are attracted to the color blue twice as much as to

any other color.

- In ceramics, a variety of ingredients (including cobalt oxide, copper carbonate, and iron oxide) produce the blue colors.
   The different variations are produced when each ingredient is combined with other materials or with each other. The application, thickness of the glaze, how it is applied, and the type of clay used also have an impact on the final color after firing.
- Blue Tigers (Maltese Tigers) have been sporadically reported in the mountains of the Fujian province in China. They are described as bluish-grey or slate-blue with white patches on the face and black stripes.
- Pablo Picasso's "Blue Period" refers to a series of paintings in which the color blue dominates and which he painted between 1901 and 1904. The Blue Period is a marvelous expression of poetic subtlety and personal melancholy and contributes to the transition of Picasso's style from classicism to abstract art.

Editor's note: The blue color in most plants is due to a group of biological pigments called anthocyanin, which appear red to blue depending upon their pH.However, cacti do not contain anthocyanin but instead contain a group of biological pigments called betalain.Betalain pigments replace anthocyanin pigments in the Caryophyalles, a botanical order which includes cacti. Betalain pigments (which appear purplish-red to yellow) are never found coexisting with anthocyanin pigments, and the chemistry of the two pigments is not similar. From Wikipedia, The Free Encyclopedia. Retrieved 03:11, July 31, 2018.

## Epiphyllum Society of America Annual Holiday Dinner and year-end meeting

SUNDAY, DECEMBER 9, 2018 - 3:30PM

OAK TREE ROOM
COCO'S ARCADIA
1150 COLORADO BLVD
ARCADIA, CALIFORNIA 91007

Buffet Dinner and Annual Awards Presentation
Dinner from 4:00 pm to 6:00 pm
Entry at 3:30

## RSVP BY November 30 to Geneva Coats, Treasurer Genevacoats@aol.com

\$30 PER PERSON \$40 PER PERSON FOR RESERVATIONS MADE AFTER NOVEMBER 30

UP.COM/STORE/EPIPHYLLUM-SOCIETY-OF-AMERICA
PAYPAL PAYMENTS MAY BE SENT TO ESA.TREASURER@YAHOO.COM

OPTIONAL \$10 GARDEN THEMED GIFT EXCHANGE



## Calendar of Events

October 2018

**ESA GENERAL MEETING** Tue, Oct 2, 7:30 pm

**Program:** Edgar Valdivia – Dragon Fruit

**Location:** Arboretum of LA County, Bamboo Room.

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

**November 2018** 

ESA GENERAL MEETING Tue, Nov 5, 7:30 pm

**Program:** Virus and Epiphytes

**Location:** Arboretum of LA County, Bamboo Room.

ESA BOARD MEETING Tue, Nov 27, 7:30 pm

**December 2018** 

Annual Awards Dinner and Meeting Sun, Dec 9, 3:30 pm

**Location:** Coco's Restaurant 1150 Colorado Blvd, Arcadia, CA.

January 2019 (no meeting)

February 2019

ESA GENERAL MEETING Tue, Feb 5, 7:30 pm

**Program: Robert Kuettle Hybrids** 

**Location:** Arboretum of LA County, Bamboo Room.

**ESA BOARD MEETING** Tue, Feb 26, 7:30 pm

March 2019

**ESA GENERAL MEETING** Tue, March 5, 7:30 pm

**Program: Heinz Peter Mohrdieck Collection Location:** Arboretum of LA County, Bamboo Room.

**ESA BOARD MEETING** Tue, March 26, 7:30 pm

## 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 month of the meeting to the right is when you have the privilege of providing food, serving and cleaning up. .

LAST INITIAL..... MEETING MONTH

A-BFEBRUARY	M-O	JULY
C-DMARCH	P-R	AUGUST
E-GAPRIL	S-T	SEPTEMBER
H-KMAY	U-Z	OCTOBER
L-MJUNE		NOVEMBER