

The Bulletin

EPIPHYLLUM SOCIETY OF AMERICA



WINTER 2018 • VOL 73 • NO. 2



PHOTOGRAPH: Robert Kuettle

‘JEZEBEL SPIRIT’

‘Margarita’ x ‘Radiant Fire’

Hybridizer Robert Kuettle Reg. #14743

PUBLICATION INFORMATION: *The Bulletin* is published quarterly in autumn, winter, spring and summer, by the Epiphyllum Society of America.

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SUBMISSION DEADLINES: 15th of Feb., May, Aug. and Nov.

DISPLAY ADVERTISING RATE: Contact Editor for rates

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ANNUAL DUES: For electronic world-wide delivery of *The Bulletin*: \$20 payable by check or money-order made out to the Epiphyllum Society of America, in US currency, drawn on a US bank. Mail payment to: ESA Membership, Geneva Coats 13674 Geranium St., Chino, CA 91710-5080 USA. All new Memberships or renewals due Jan 1. Annual Dues are applied to the following year if paid from September 1 to December 31. Members may also pay online via our Square Market page: <https://squareup.com/market/epiphyllum-society-of-america>. Renewal receipts are not issued.

FOR INQUIRIES: Send an email to genevacoats@aol.com.

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

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. Food and 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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FOUNDED MAY 5, 1940

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From Top:
'Bling Bling' hybridizer Rudolf Heßing,
'Undine' hybridizer Dick France,
'Pennywise' hybridizer Robert Kuettle

Winter Culture Calendar

In winter, the epi collector must be very aware of what to expect in the way of weather, and to provide the necessary protection that will safely see his or her epi collection through the season. However, remember cold weather is a good thing as it allows for a rest period (dormancy), necessary for encouraging bountiful blooms next spring.

Temperature. Epies can stand near freezing temperature for a fairly long period without visible damage. However, if there is frost, there may be damage especially to the soft new terminal growth. To safeguard an outdoor collection with a white plastic covering or wrapping is usually sufficient for milder areas, and where the minimum temperatures last a relatively short time. More protection is added with the heaviest clear mil plastic available as a covering over the growing area. The thermodynamics of the situation is that the plants lose heat by both conduction to the surrounding air, and by radiating heat to their surroundings, including the sky. Under clear conditions, the heat lost to the sky can be significant. On a clear night, the sky is at the temperature of outer space which is near absolute zero, or minus 460°F. The heat lost is proportional to the fourth power of the temperature difference. Clouds or anything that blocks the view of the sky lowers the temperature difference and cuts the heat lost significantly. Any covering or wrapping should be well secured against winter winds. The time that an epi will tolerate exposure to freezing temperatures is reduced if the root ball is saturated with water. Epies resist cold better if on the dryer side. If prolonged freezing temperatures are to be expected, the safest plan is to take the plants indoors where the temperature can be maintained above freezing. If the root ball freezes solid it will kill the roots and they will rot. Then you will have to deal with the familiar situation of a plant without roots. Epies with minimum light and water hibernate.

Water. As usual, watering in winter is a bit of a balancing act. As discussed above, one needs to favor the dry side especially if it is cold. However, as usual, the root ball cannot be allowed to completely dry out. If there is sufficient rain no added water will be necessary, sometimes for many weeks. Epies love rainwater, if there is sufficient drainage. Rain has the significant beneficial effect of leaching out salts left by the tap water or other sources. Unfortunately, it also leaches out fertilizer, especially liquid fertilizer. It is unfortunate that the epies in harshest climates that require covering, will miss the benefits of the cleansing seasonal rains.

If the rain is not sufficient the epies have to be carefully watched for drying out, especially if the humidity is low. If the humidity is high, they will stay moist longer.

Fertilization. Epies can show signs of buds as early as December. But many growers avoid interrupting the dormant period, and forgo winter fertilization at least till midwinter, say around Ground Hog Day. Some then start the seasonal fertilization cycle with an application of 0-10-10 or 2-10-10. Early blooming is especially found with the smaller varieties, which have a tendency to start to bloom as early as March in the milder climates. If trying to maximize growth, such as for plants too young to bloom at for propagation, fertilization could continue all year,

Grooming. Continue to groom and trim your collection, especially if you didn't finish the job in the fall. Mushy (the result of excessive water), blackened or branches with mostly dead areoles should come off. The plants generally "tell you" what branches to remove. If you get frost damage, move the plant to a more protected place or otherwise protect it more and see what develops. No matter how bad the foliage mass is, if the root structure is healthy, the plant will probably eventually recover. If you have hail damage, remember it is entirely cosmetic. If you are not interested in the seeds, remove any seed pods. If you are interested in the seeds, you can find more culture information in the excellent articles by Don Burnett on Growing Epiphyllums from Seed starting in Bulletin Vol. 72, No. 2 and No.3, Winter and Spring 2017.

Planting and Repotting. Except for the mildest of climates, the winter months are the least appropriate for planting cuttings or repotting. Generally, planting cuttings or repotting at this time of year is considered an emergency situation. Examples might be a plant that has fallen and broken its root ball, or a plant that suffers from a waterlogged root system due to poor drainage or excessive rain or watering. With the latter you need to remove the rotted and mushy roots completely, and treat the plant as a cutting,

Pests. Be on guard for pests. Snails and slugs still find epies an irresistible feast. Malathion or insecticidal soaps will still deal with insect pests. However, we may have created a new problem for our collections. When we cover our epics with plastic, we have not only insulated our epies, we have just protected any epi loving vermin from its' natural predators. Now might be the time for poisoned baits or traps that we would avoid for pets or other considerations in the warmer times of the year.

Seed Pods. Many of the epi cultivars seed pod will cling to the plant until the following spring before ripening. If you are interested in the seeds. the pods need to be protected from frost and pests. Protective coverings of the seed pods of paper bags or wire mesh will usually discourage any four legged raider. Again for harvest and culture information see Don Burnett article in Bulletin Vol. 72, No. 2 and No.3, Winter and Spring 2017.

Highlights of Recent Meetings

HIGHLIGHTS OF THE OCT. 3rd MEETING: The program for this multi-part presentation started with a short discussion by President Robert Kuettle on his process for judging epi flowers at the ESA show. He starts by making sure the flowers are in the proper color and size section. If there is a flower that Robert does not know by sight, its identity is checked against the Registry. As he looks over the selections there are usually a flower or two that just pop out or “call to him”. Then the judging team discusses the merits of the different flowers. The perfection of the flower, color, form, etc. are discussed and selection(s) are made. If there are more than one candidate winner, each is discussed and scrutinized for any imperfections. At this point there is often a consensus among the judges as to the winner and the runners up. When there is no consensus a vote may be taken or further discussion ensues until agreement is reached. He also noted there are multiple judging teams as it takes too long for a single team to judge all flowers at a show.

Next was a video presentation of epi flower photographs taken by San Diego Epi Society member Don Crain, brother of Ron Crain. Don Crain is the bearded man one sees at flower shows with a camera and tripod. The pictures that Don takes are unusually striking and sharp.

DON CRAIN'S PHOTOGRAPHS CAN BE VIEWED AT:

<https://www.flickr.com/photos/12205793@N04/3506406222/>

HIGHLIGHTS OF THE NOV. 7th MEETING: The program for this evening was video presentation by President Robert Kuettle of his hybrid originations titled “Work in Progress”. He stated that when he was 18 years old he received his first epi from Galen Pittman. He showed us his first cross of ‘Andromeda’ x ‘Clown’ in 2009. His slides were ordered from the oldest cross to the youngest. The slides were especially informative, and different, as they included both the parents and the cross itself. His first crosses were done without a clear goal — just the desire to see if he could actually succeed in growing plants from seed. Soon he focused on a few long term goals: creating an orange flower with a white throat, and creating more multicolored flowers (perhaps a flower that contains purple, red, orange, yellow and white). Other interests are: more predominantly red flowers, orange to yellow-orange flowers and multi-petaled flowers of fine form. He often likes to cross flowers that are dissimilar in color and/or form hoping for a wider variety of progeny. He stressed the importance of looking at the grandparents of the flowers he is crossing to get a better picture of the qualities you might expect from their grandchildren. Robert throws out up to 70% of the results within the first 2

years. If they are misshapen, look too much like an existing flower, not interesting enough, or don’t even come close to the goal for that cross. Any plants that grow poorly or spot badly may be tossed before they even get to blooming size.

A SELECTION OF ROBERT KUETTLE'S HYBRIDS



'Voodoo Child'



'Lady Stardust'



Unregistered ('Awesome' x 'Dijonaise')



Unregistered ('Heaven Sent' x 'Crystal Flash')



Unregistered ('Diva' x 'Acapulco Sunset')



Unregistered ('Awesome' x 'Dijonaise')



Unregistered ('Margarita' x 'Radiant Fire')



Unregistered ('Clown' x 'King Midas')



Unregistered ('Diva' x 'American Sweetheart')



Unregistered ('Forever Young' x 'Professor Ebert')



Unregistered ('French Gold' x 'Big Daddy')



Unregistered ('Forever Young' x 'Tropical Incense')



Unregistered ('San Miguel' x 'Dijonaise')



Unregistered ('Marie Antoinette' x 'Wild Toucan')

A SELECTION OF FLOWERS FROM ROBERT KUETTLE'S CROSS OF 'DIJONNAISSE' X 'SHIMMER'.

The first group of flowers from cross #14 'Dijonnaise' x 'Shimmer'. This is proving to be an interesting hybrid producing a nice range of colors from pinks to orange and red, some of the flowers have a very heavy substance as well. A very prolific cross, with about 50-60 more plants yet to bloom.

Note the difference from the first seasons bloom of 14-04 to its second season bloom. This is a perfect example of why it's important to allow new hybrids to bloom at least 3 seasons before registering, thus avoiding the problem of an inaccurate flower descriptions.



14-01



14-02



14-03 'Lady Stardust'



14-04 First season bloom



14-04 Second season bloom



14-05



14-07



14-08



14-09



14-10 First season bloom



14-10 Second season bloom



14-11



14-12



14-13 'Soul Love'



14-14



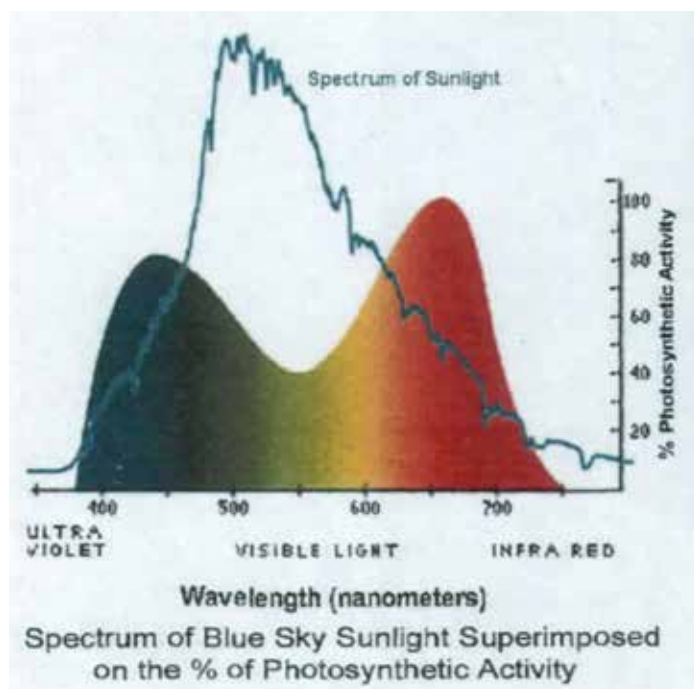
14-16

Epi Blooms and Grow Lights

By Keith Ballard

As we wander through our epi collections as winter progresses, we notice the areoles are bulging and actual buds are forming. Once again our thoughts turn to "what can I do to enhance flower production or size?" We know that a timely application of a 0-10-10 or 2-10-10 fertilizer will help. But is there anything else that one can do? Remembering the discussion of the influence of sunlight on flower production from *The Bulletin* Vol. 60 No.1 Autumn 2004, one would wonder if increasing the light (such as a grow light) would help.

Light Basics. Before we run off and buy a grow light we need some basic information on the different kinds of grow lights and how they work. Sunlight, like all light, is an electromagnetic radiation that is made up of energy at different wavelengths. In the visible light range we can see the radiation of different wavelengths as different colored lights when sunlight is split by a prism or as a rainbow in the sky. See the figure of the "Spectrum of Blue Sky Sunlight Superimposed on the % of Photosynthetic Activity". The blue curve shows the spectrum, or the relative



magnitude of each wavelength of light energy (color), of typical sunlight in a clear blue sky. The peak of the curve is in the visible light range at about 500 nanometers (nm). On the same figure, the doubled humped colored curve shows the relative efficiency of the use of radiation of that particular wavelength in photosynthetic activity (photosynthesis) by a typical plant. Of particular interest to us are the shorter wavelengths of 400-520

nm, as this range includes the violet, blue and part of the green band. Here peak adsorption by chlorophyll occurs, and a strong influence on photosynthesis.

Of even more interest to us is the range of longer wavelengths from 610-720 nm, which is the red band. Here a large amount of absorption by chlorophyll occurs and is the most significant



LED Grow Light, showing color caps on the individual LED lamps

influence on photosynthesis (promoting flowering and budding). Finally, for wavelengths from 720 -1000 nm there is little adsorption by chlorophyll here, but there is influence on flowering and germination. The high end of this band is infrared, which is heat. One more observation concerns the valley between the two peaks of the photosynthetic activity curve which is primarily the yellow to green wavelengths in visible white light. The chart shows the minimum at about 40% efficient, but some of the sources place this value as low as around 10%. The point is that light of these center bands, including what is called white light, is very inefficiently used by plants. Finally, looking at the two curves together we see that sunlight has lots of light energy with wavelengths in both of the wavelength zones that are beneficial to plants; and in fact it has light energy that covers all of the wavelengths of the % of Photosynthetic Activity. This is true 'full spectrum' which full spectrum grow lamps (described below) are attempting to achieve.

What's the bottom line of this discussion for epi flowering? For a grow light to enhance flowering it needs to be rich in light energy with a wavelength of 610 to about 750 nm, or from color viewpoint, provide lots of orange-red light. An additional point is that lamps that are primarily white light are of little value as grow lamps.

The latter characteristic probably explains why an experiment with white light LED lamps was a failure, especially as one of the lamps failed during the experimental period. I had suspected that the LEDs might be of the wrong wavelength anyway; I only tried them as they were half price and made the experiment relatively low cost. Also, based on what I now know, the LEDs were too far from the plants to do any good.

Grow Lights. There are a number of different approaches for grow lamps. However they do have some common characteristics. First, all commonly the actual lamps are mounted in some kind of fixture designed to be mounted above the plants. These fixtures seem to be mostly intended for indoor usage. I suppose one could devise some sort of a "rain coat" for outdoor use, at least for the low heat generating ones.

In addition, most grow lamps have either some sort of a reflector in the fixture, or in the bulb, or both. The reflector sends the light in a single direction, and light naturally spreads out the farther from an individual bulb in a cone shape. Thus, the size of the light's coverage is controlled by how far the grow lamp is from the plants. However the light intensity (lumens) for all lamps decreases as the square of the distance to the light source. Thus, twice as far means one quarter of the light intensity. So, picking a distance between the grow lamp and the plants is a balancing act. And as a matter of fact, the actual distance may have to be increased as the plants grow.

Finally, all have specifications given in watts. Watts are a measure of the input electric energy consumed by a lamp. We are accustomed to lamps being rated in watts from incandescent household lamps. However, watts specify input power consumption only and do not tell very much about the amount of light the lamp produces.

In recent years lamp manufactures have added a listing for the light output of lamps on their packages given in lumens. For example, a standard white GE 40 watt lamp produces 485 lumens and a 60 watt lamp, produces 825 lumens. Notice the increased light output is not linear as the 60 watt lamp produces more than 1.5 times lumens than those produced by the 40 watt lamp. For different types of lamps the differences are even greater; for example, a 40 watt fluorescent tube is rated at 2325 lumens. For grow lights wattage rating may be useful mainly to assess the energy cost of running that particular grow lamp.

Types of Grow Lamps.

HID (High Intensity Discharge) Plant Grow Lights.

There are 2 kinds of HID Grow Lights: Metal Halide and High Pressure Sodium. Each has their own characteristics but both produce a lot of light plus a lot of heat. In fact the majority of the output -- up to 75% -- of these lamps is heat. To prevent heat damage, HID grow lamps have to be mounted a significant distance from the plants. Higher wattage bulbs are available to provide for more light for a larger coverage footprint, but have to be mounted higher and higher to prevent heat damage. By the way, both contain mercury vapor as do fluorescent tubes.

Metal Halide (MH). MH bulbs produce up to 125 lumens of light per watt of consumed power, with an abundance of visible light and light in the blue spectrum (shorter

wavelengths) Thus, a 100 watt MH bulb outputs 12,500 lumens as compared to a 100 watt incandescent bulb at 1587 lumens. A MH grow light also has the advantages that it can be the general lighting for its local area, is good for plant growth and lasts for about 10,000 cumulative hours. But it has the disadvantage of requiring some supplemental lighting in the red orange wavelengths to improve blooming.

High Pressure Sodium (HPS). HPS bulbs produce up to 140 lumens per consumed watt; are a great flowering light, with their orange-red color; and last almost twice as long as a MH bulb at up to 18,000 hours. However, they are best used as supplemental light to natural sunlight or MH grow lights as they don't do much for plant growth, being deficient in the blue spectrum. To give some feel for the heat given off by these bulbs the results of an analysis done by LEDtronics (a manufacturer of LED grow lights) is quoted here. For a 1000 watt GE Lucalox HPS bulb, 73% of the output is heat and 27% is light energy, of which only 10.8% is light energy within the high efficiency wavelengths.

Fluorescent Tube Grow Lights. In the past fluorescent tubes did not have sufficient light output to be efficient as grow lamps. However, recent years have seen the development of high efficiency 'full spectrum' bulbs in both the standard T5 tube and a compact version. There appear to be 2 compact fluorescent grow lights available, rated at 125 watts and 9,500 lumens with an average life of 10,000 hours. The 6400K bulb is a full spectrum version intended to promote overall plant growth. The 2700K version provides increased output in the red spectrum to promote budding and flowering. (6400K and 2700K refer to "color temperature". A standard "daylight" fluorescent tube has a color temperature of 6500K). The manufacturer states that due to their low heat output, these grow bulbs can be located very close to the plants.

Incandescent Grow Lights. Incandescent grow lights are available in what is stated as a 'full spectrum daylight' lamp in 60 watt and 120 watt versions. Life is stated to be 3000 hours. These lamps are intended to help plants maintain healthy growth and over wintering for light loving plants. They are typically mounted in clip-on single lamp fixtures.

LED Grow Lights. Using LEDs (Light Emitting Diodes) as grow lights is the newest approach to the application. For grow lights, individual LEDs are grouped into a cluster and are capped with a plastic filter so that the emitted light is exactly the most efficient wavelengths for a plant. A picture of a LED grow light, manufactured by the **LEDtronics** Company is shown in this issue of The Bulletin. They are very low power; a bar fixture of 3 LED grow lamps is rated at 5.3 watts. So it can be very close to the plant, but remember the balancing act of distance to the plant versus coverage. Unfortunately, **LEDtronics'** website does not give a value for light output, but it does state that the light produced is at a wave length of 620 to 630 nm, right on the "money". It also states that for

"maintenance" of a plant's blooming, the distance from the light source to the plant is best at 24 to 32 inches.

Application. Now that we know more technically about grow lights than we may care to, the question is still will they help with flowering? Epies start to set buds in December, and as we know, and before that they need a rest period to bloom well. Adding a lot of extra light when an epi should be resting does not sound like a very good idea. It would appear that if a grow light is used at all, the best choice would be one rich in the red spectrum and in spring after it has started to warm up.

However, a second consideration is the size of the coverage. An epi of blooming age can be a pretty good sized plant. In addition, epics need air circulation, and should not be too crowded. All the grow lamps have a fairly small coverage area. (That's exactly why one sees those "pot farms" on TV in a fairly large room with grow lights on a few foot centers filling the room and running all the time. At around \$90 or more each that's a lot of money, but pot is a money crop.) However, there are a lot of grow lights on sale, web sites have pages and pages of all types. LEDtronics has a sales site and I'm sure there are more.

A Sample Application. As a sample application of grow lights, let's consider adding grow lights to my epi garden. I have a large collection of epies in 3 sizes of pots: 3 1/4, 6 and 8 1/2 inch. The majority of the blooming plants have a 3 foot trellis and sit on nine 84 by 32 inch platforms, see the included picture. I estimate it would take 2 to 2.5 lamps (the 0.5 being in the middle of a 2 platform string) per platform. There is no place in the house or garage for the 11 platforms, so a "rain coat" and hanging means for the lamp fixtures would be needed.

However, such an installation is not without problems. First, the lamps and their rain coats will cause a sun shadow. Leave the lights on all the time to compensate? I don't think so. Second, epi plants are large as plants go, and there is quite a bit of size variation between hybrid plants. The branch length between plants varies from 2 1/2 feet to over 4 feet, just in my garden. Since the light intensity decreases by the square of the distance between the lamp and the plant, it would be difficult to pick the optimum lamp to plant distance for a single plant, much less that for a number of side by side plants on a platform. This is true for both the trellised and hanging plants. I have a hanging 'Jalisco Grace' plant whose branches measures 30 inches from top to bottom. What would be the optimum lamp-to-plant distance just for this plant?

Thus, with the high cost of the grow lamps, rain coats, hanging means and the probably limited effectiveness, grow lamps are not an option for my epi garden.

Notes:

LEDs are the lamps widely used as pilot lights in today's electronic equipment.

A **nanometer** is one billionth of a meter.

Wavelength is the distance from start to finish of one cycle of a cyclical waveform.

Cloning Kits Continued

When I wrote about Cloning Kits in the last *Bulletin* (Vol. 72, No. 1 Autumn 2017), I was mainly thinking about saving a hybrid epi on the verge of extinction. But I got a very interesting e-mail reply from UK Member Bob Rouse making it clear that these kits can be useful in many rooting situations.

Bob Rouse's Instructions & Comments. Bob is using a product called **gel² root**, which is readily available on the internet. From the included pictures one can see that it is a structure of 6 clear cups of rooting gel, joined at the common flat top.

Bob's comments: "Firstly, the product instruction states that it's NOT for use with Acid loving plants. I queried this with the manufacturer who stated that this refers to ACID ONLY growers such as Rhododendrons, Camellias etc. O.K. for Epies as they will root quite happily in standard pH compost.

Secondly, no need to callous the cut end prior to insertion into the gel. Cut and plant which saves time. Ensure that the cutting forms a good fit in the foil top of the gel pot to prevent the gel drying out.

I used this on German Empress and Pink Plumes cuttings which as you will know can be difficult, with no problem. I now use this system regularly for difficult to root varieties."

Local Follow-up To really understand the process, and to check how long it takes to root, I bought a **gel² root** kit from Amazon. While shopping I noticed that **Clonex Clone Solution** had a higher rating than the **gel² root** so I bought some of that also. However, when the **Clone Solution** arrived I discovered it was not a gel, but instead a concentrate for lowering the pH of the irrigation water.

In fact there is a whole array of things one can buy for cloning including a rooting gel one "paints" on the end of the stem of the cutting. There are also blocks of various materials into which one inserts a small stem (sadly unusable with the wide branch of an epi cutting), pots to match the blocks, racks, and so on. There are even on-line seminars on how to clone and use the various products.

Like many other epi enthusiasts, I have successfully rooted epi cuttings for many years using the regular epi mix, misting and watering with tap water. Excluding those epies that are hard to root, I don't think that any more is needed for routine rooting. So I'm trying the **gel² root**, and I'm also going to use the **Clone Solution** to see if it dramatically speeds up the rooting process in the regular mix.

Note: Amazon also has a section for each product for sale of "what other buyers of this product also bought". This listing also includes the rating the buyer gives to these additional products.

New Registrations for 2017



'Aldebaren'



'Bloody Mary'



'Almost Innocent'



'Captain America'



'Bling Bling'



'Charlie's Angel'



'Clarity's Ginza'



'Cora'



'Clarity's Laniakea'



'Crimson Harvest'



'Clarity's Tosser'



'El Diabolito'



'Galleria Belle'



'Jezebel Spirit'



'Jalisco Camilla'



'Katie's Reward'



'Jemo'



'Kima'



'Lino Due'



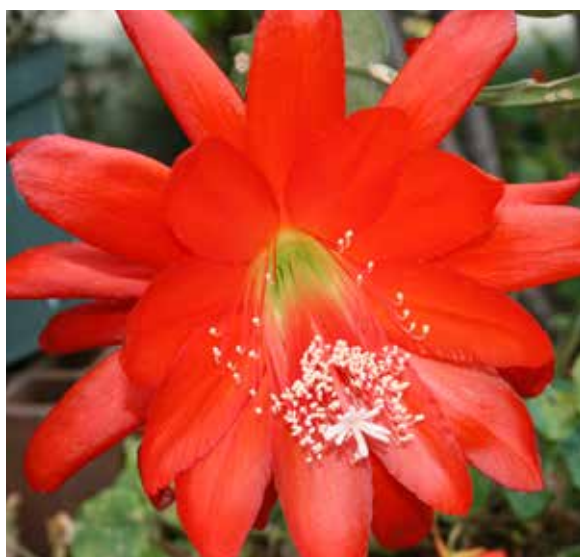
'Miss Philippines'



'Michele's Six Pack'



'Mothra'



'Mildred & Gerry'



'Mr. Lucky'



'O Holy Night'



'Raoul Piette'



'Pennywise'



'Robert Willey'



'R&R Micky Maus 1'



'Scarab'



'Shotzie D'



'Splash Down'



'Snake Charmer'



'Stephan Mergelmeyer'



'Soul Love'



'Sun Due'



'Ucayali Sun'



'Undine'



'White Peacock'

What's in a Name?

by Keith Ballard

In the current Registry of Species and Hybrids data base, there are about 11,000 registered epiphyllum hybrids. With names that range from 'A Beautiful Day' to 'Zuzu', there are epies named after people and groups, mythical and imaginary characters, places, seasons and events. It might be interesting to know the story for each of the epies in our collections. We can just ask the hybridizers, the registrants, or someone else that knows if they are available. But for those who are not available, we have to rely on our memories, find the information elsewhere or deduce the story from the Registry if we can.

Happily the origins of some epi names are actually described in the Registry. Examples of epi names described in the Registry include some of the wonderful flowers with German names. '*Frühling*' in German means "spring", certainly an appropriate name for an epi. A whole series of *Frühling* combinations are listed, with names such as '*Frühlingsabend*', which means "Spring Evening" and '*Frühlingstraum*' which means "Spring Dream", again all very appropriate names. As a matter of fact, there are a number of epies with non-English names where the English translation is included in the Registry entry. Unfortunately, not all are translated.

Epies named after people abound. An interesting quote from H. M. Wegener (an ESA founder, hybridizer WEG and early promoter of epi growing) about naming epies after living people is "one should not name our beauties after a living person as they might turn out to be a rascal". There are some renamed epies in the Registry, presumably for that very reason! A few epies named for epi personalities that we know includes: 'Pat Ballard' (former ESA Treasurer and Membership Secretary), 'Dr. Rudi Dorsch' (who really needs no introduction), 'Rudolf Hessing' (hybridizer RUD) and 'Peggy Oberg' (a former ESA President). Examples that are not so self explanatory but in the same category are 'Dr. K.' (for Dr. R.W. Kohlschreiber) and 'Judy C.' (for Judy Cocke, Wressey Cocke's daughter-in-law).

There are many more epies named for deceased people than for living ones. A few examples of this type include more epi personalities such as 'Mrs. Gertrude W. Beahm' (the first and longest serving editor of the *ESA Bulletin*), 'Wressey Cocke' (hybridizer WC. Wressey was unhappy with this choice as he felt it was hard to flower, so a second hybrid was named for him as 'Mr. C.'). 'Paul L. Fort' and 'Garland O'Barr' (hybridizers FOB and owner/builders of the Manhattan Beach, CA "Country Garden Nursery"), 'George French' (hybridizer FRE), 'Ethel Hurst' (Hybridizer and registrant HST and owner of Hurst Nursery), 'Velma F.' (for Velma Featherstone, a former ESA President and having the second longest tenure as the *ESA Bulletin* Editor, hybridizer and registrant VIF), and 'H. M. Wegener' (mentioned above). In the Registry a flower named for Curt Knebel (the early German hybridizer to whom all epi collectors should give thanks) is listed as hybrid 'IMO Curt Knebel'.

However, namesakes are not limited to epi personalities, they include a whole gamut of people, places and things. Examples include: 'Admiral Togo' (Japanese naval hero), 'Frida Kahlo' (a famous Mexican artist), 'Buzz Bomb' (English nickname for the German V1 rocket), 'Garfield' (a cantankerous orange cartoon cat), 'General Robert E. Lee' (a southern general in the U.S. Civil War), 'Gobi Desert' (a desert in central Asia), 'Jean Harlow', (an early U.S. Movie Star), 'Jupiter' (the largest planet in our Solar System), 'Key West' (Florida's westernmost island), 'Kona Coast' (a coastal area in Hawaii), 'Liberty Bell' (an American symbol of liberty), 'Los Angeles' (a city in California), 'Madame Pele' (Hawaiian goddess of volcanoes), 'Mrs. Bess Truman' (wife of former U.S. President Harry S. Truman), 'Maya' (a Pre-Columbian Indian culture of Meso-America), 'Platinum Blonde' (a name for a woman with bleached hair), 'Polaris' (the North Star), 'President Franklin D. Roosevelt' (U.S. President), 'Queen Victoria' (a queen of the United Kingdom), and 'Rio Grande' (the river that forms the border between Texas, USA and Mexico).

There are hybrid names that form a series. Herein, a series is defined as a set of names with a common factor by a single hybridizer or registrant. If the common factor is the first word of the hybrid name, all of a given hybridizer's originations are automatically grouped together in the Registry. An example of a common first word series is the way Australian Hybridizer Joyce Carr started all her 129 originations with the word "Liberty", after the street she lived on. There are a number of common first word series in the Directory, which varying in number, are sometimes part of a larger list of epies for a given hybridizers or registrant or stand alone, and are active or not. A current series, which is very large, is by German hybridizer Helmut Paetzold, where his origination names are of the form '(a first name) Paetz' such as 'Agatha Paetz' or 'Gitti Paetz'.

There are a number of instances where the same first word is used in hybrid names, but they are not a series since these names are given by different hybridizers or registrants. These names include colors such as red or golden; titles such as Dr., Frau, Madame, Monsieur, or Professor; seasons such as spring or autumn; states, countries, and regions; and many other names.

Most of the examples given above get their meaning from the name itself -- with the exception of the names used by Joyce Carr and Helmut Paetzold, and the story given for 'Mr. C.'. However, beyond the meaning of the name is the question: why did the name giver give this name to this particular epi flower? For those epies with names of people, we can guess it was done to honor, memorialize or remember that person. Or maybe it was just a name that the name giver liked. Some of these names we recognize but unfortunately there are thousands of epies named for people that we do not recognize and have no way of finding out who they are or were. For example, who was 'A. R. Rideout', the first real name in the Registry and named by Sherman Beahm 56 years ago? In addition, there are many epi names that are only a person's first name, most of which are certainly lost to history. Who inspired the name for 'My Melanie'? We will probably

never know. There is an epi named 'Laura'; there is also a rather haunting song of that name. Or was it named for a real person?

A number of the epi names can be classified as epithets. An epithet is defined as "an adjective or other descriptive word or phrase used in place of a name, which can be good or bad". A couple of epithets I remember are for 'Flamboyant Jeff' who is one of George French's sons-in-law, and 'Michele My Belle' named for Michele Davis of the former Gray/ Davis Epiphyllum Nursery. Beyond what we actually know, we can be on thin ice trying to deduce the story for many of the epithetic names. But there are some that at least seem obvious, especially where the flower color seems to inspire the name. Examples abound of names inspired by the flower color including 'Zona Rosa' for a pink flower, which translates from Spanish to "pink zone"; and 'Fire Flame' whose description is: "Fire red with signal red edge, back petals fire red". There are others like 'Platinum Blonde', the description being "Heavily crinkled white petals. Pale yellow outer petals". But there are exceptions: for example 'Brown Bear' is not brown.

Finally, there are a number of names and epithets where the meaning of the name is obscure, let alone the story behind the naming. Here either someone remembers (which is unlikely for very old hybrids) or the information is written somewhere. My personal favorite of this category is 'Quack a Duck', hybridized in 1941.

So, if you are interested in the story of at least some the names of your epi collection here's a starting point. Have fun! And if you know some of the stories write them down and send them to me so that we can increase the number of stories that are known..

Plant Labeling

by Keith Ballard

To an epi collector, almost nothing is more frustrating than losing the name from a known epi cultivar. With 10,000+ registered varieties, and a number of unregistered ones, recovery of a lost name is uncertain at best. Therefore, it is important to have a reliable and long lasting system of labeling. In addition, labeling each plant in at least two different ways is the most reliable approach. Remember, writing the name of the cultivar on a branch as the only labeling may very well result in an unknown plant in the long run.

Plastic Stakes. The hand written plastic stakes (or tags) sold by nurseries and by the ESA is the most widely used system. However, plastic stakes have a number of draw backs due to time and weather, including that the printing fades and the stakes become brittle and eventually break just above the ground level. There is a reprinted article in this Bulletin by Raymond Eden entitled

"Labeling ID Tags" to try to deal with these short comings. In that article, Raymond suggested that a black Sharpie marker is the most long lasting approach, but history has shown that a very soft pencil (like a #1) is even better. It seems to me that the Sharpie ink does not last nearly as long as it formerly did.

In addition, some growers report that burying a second marked stake at the bottom of the pot will enable recovery of the name at repotting.

Alternate Marking Methods. \ In reality there are other plant labeling approaches that can be used. For example, many of my 8 1/2 inch and larger pots are trellised with 3 vertical wood sticks. On each pot trellis, near the top of one stick, I have a vertical stick-on label made by a Brother P-touch label maker. On a clean stick, these labels seem to last forever. As a second label I add a Dymo label maker label on another stick. Here I leave the backing on the adhesive, punch a hole in the label, and hang it on with 40 pound fishing line. The black Dymo labels last for years, the blue ones last somewhat less, and other colors fade rapidly. The hanging pots also have the hanging label plus a P-touch label on the side of the pot in 2 places. On 6 inch pots I depend on the Sharpie pen marking on a plant branch and a hanging Dymo label on the pot. On the 3 1/4 inch pots I write the name on two sides of the pot, and on a epi branch, plus the planting date on one side. My 3 1/4 inch pots are watered automatically with a spray. Any printing on the side that is hit with the spray washes away fairly quickly.

Another approach, and a very low cost one at that, is Shirley Marneus' idea of labels cut from aluminum soft drink or beer cans. They can be cut with a heavy duty scissors into roughly the shape of a plastic stake or a hanging label with a hole to be hung on the pot. The resulting label is embossed with a ball point pen, pressing fairly hard on a stack of newspapers to make the embossing deep. The contrast for the lettering is not especially good, but can be improved if necessary by rubbing paint into the letters. This approach would be especially good for the back-up label buried in the mix.

Yet another approach is to write directly on the pot with a china marker. Ethel Hurst used a china marker to mark her pots, and Galen Pittman guessed the markings on some of her pots could be 40 years old. China markers are available on the internet and possibly in some stores. However, if you reuse previously used pots, such a marking will be hard to remove. This type of marker can probably be used on a plastic stake but it might very well last longer than the stake.

I find it hard to believe that there are not other approaches to labeling. If you have one that works, one that stands the ravages of time and weather, pass it along and I will print it in a follow-up article.

Labeling ID Tags

by Raymond Eden

Reprinted from *The Bulletin*: Vol. 54, No. 4. KCB

You might think the way to label ID tags is so self-evident that there is no point writing an article about it. But that's part of the problem. It appears so simple, few people give it any thought until it is too late. I've seen too many collections where labeling problems created havoc, (my own included) that could have been avoided. I no longer underestimate the importance of getting it right from the start.

When you get a cutting, chances are its name is written on it. Don't assume the person who wrote it used indelible, waterproof ink. Re-label it yourself so you are sure. Once the cutting is rooting, don't think the name written on the stem is all you need. All too often, after new growth forms, the original cutting dies back, and there goes your label. Always use at least one other label.

When making an ID stake use a black waterproof marker. Do not use red. It fades too quickly. Do not use the fine point pens because they also fade too quickly, and writing is too hard to read from a distance. If the plant's name has two or more words, write them on two lines, so you can read the whole name without having to pull the stake out of the pot.

Write the name on both sides of the stake from the top down on one side, (Figure 1), and from the bottom up on the reverse (Figure 2).



Figure 1. Use two lines for multi-word names.



Figure 2. Name written from opposite end on back..

This way, if the stake is ever broken, all of the plant's name remains on what is left of the stake. As your collection ages, you will discover tags with the upper portion so badly faded they can no longer be read, or find the lower portion of a tag in the pot, and the upper portion lost. It can be nearly impossible to reconstruct a plant's identity with just the last few letters of its name. For example, a glance at the *ESA Registry of Hybrids and Species* provides us with the following — 'Bowl of Beauty', 'Brazilian Beauty', 'Breathless Beauty', 'Bright Beauty', 'Buff Beauty', 'Cajun Beauty', 'California Beauty', 'Charming Beauty', 'Eastern Beauty', 'Fantastic Beauty', 'Fleeting Beauty', 'Garden Beauty', 'Glistening

Beauty', 'It's a Beauty', and 'Jersey Beauty'. We also find 'Beautiful Day', 'Cheery Day', 'Dancing Day', 'Father's Day', 'Gala Day', 'Happy Day', 'May Day', 'Mother's Day'. Not to mention 'All Star', 'Amethyst Star', 'Blazing Star', 'Bronze Star', 'Broadway Star', 'Crystal Star', 'Dark Star', 'Derby Star', 'Evening Star', 'Four Star', 'Fuchsia Star', 'Gold Star' and 'Heavenly Star'. There are eighteen epies with the word "Girl" as the second or third word; seventeen epies with "Queen"; fourteen with "Gold", and ten with "Rose". This simple act of writing the name on both side of the tag, but at opposite ends can be a life saver.

Some people prefer to show the size and color of each plant on its label along with its name. if you do this, you should still write the name of the plant on two lines if it has more than one word in it, and write the abbreviations for size and color at the other end. Then repeat it on the back of the tag, reversing the order, (Figures 3 and 4).

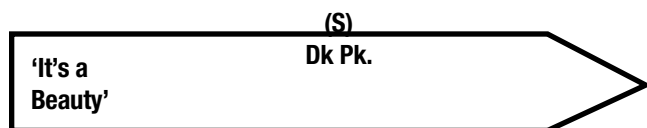


Figure 3. Name on two lines, with size and color.



Figure 4. Name, size and color on opposite end on back..

If the main ID label is for a plant in a hanging pot, you might want to make one for each of the wires of the hook, since it seems plants always hang with the label facing the wrong way. These are to hang on the outside of the pot. An inexpensive paper hole punch is perfect for punching a hole in one end of the stake by which to attach it.

Some years back, writing for the Bulletin, Shirley Marneus recommended embossing a plant's name on a piece of aluminum and putting it in the bottom of the pot before potting the plant. This should be done in addition to normal labeling, as a last resort method of verifying a plant's name if all other labels are faded or lost. This is a great idea.

My Mistakes with Using Worm Castings

by Keith Ballard

I did not plan to write again about repotting results till next years' flower season, but the repotting with worm castings did not work out too well, so this is a warning.

I was impressed with the results reported by ESA Treasurer/

Membership Secretary Geneva Coats' article using worm castings on various plants, from Bulletin Vol. 72 No. 3. But, she did not try the castings on epies, so I thought I would. At the nursery, I read the label on the worm castings and it said for Acid Loving Plants, so I thought it would be OK and I bought the smallest bag.

For use, the bag states use a teaspoon of the castings per inch of the container. For a 8-1/2 inch pot, that's almost 3 tablespoons. That should have been a "red flag" warning, but it wasn't recognized. As I noted in the last Bulletin, I didn't think that the water drippers of my automatic watering system, with it's 1/16" stream of water, could deal with that big a pile of worm castings, so I mixed the castings into the potting soil instead of the time release fertilizer.

Then, I selected 9 epi plants of different sizes and ages and repotted them with the casting mix and waited for the results. Fairly soon I noticed that all the visible growth in these repotted plants had stopped growing. At first I didn't worry, as I have seen other epies stop growing at repotting. But, as time went on with no growth in 8 of the 9 plants, I started to worry more and more.

Finally, I took action. The first thing I did was to measure the pH of some of the plants, which was 7 or a little higher. With the fertilizer content percent values on the worm casting bag being 0.67-0.10-0.07 and the pH of the Los Angeles water as being as high as 7.5, it's no wonder that acidity of the mix leaf mold was overcome. This probably explains the stopping of the growth. Mistake Number 1.

I also noticed that the pots were heavy and the mix was soggy. What happens with an epi with a mix with too much retained water, you guessed it, the roots rot. I guess that the large amount of castings used, was enough to retain a lot of water. Mistake Number 2.

So, I started digging up the plants and repotted all in my standard mix. The results are: 4 plants had enough roots to survive, and 5 needed the re-rooting procedure, including waiting 30 days before starting to water after repotting. After only 10 days from this repotting, 2 of the 9 were showing new growth. This includes one of the plants I thought had enough roots to survive and one I didn't think had enough roots.

What would have happened if I had used my standard mix with all these plants, including the time release fertilizer, and an almost 3 tablespoon pile of worm castings? I don't know and I'm not going to risk any more epi plants to find out. I guess epies have never experienced worm castings before, as worms don't climb trees. However, if you have successfully used worm castings to improve epi growth or blooming, let me know and I will investigate further and write a follow-up article/s

The bottom line here is all the 9 test plants have been repotted and are showing new growth.



San Diego Epiphyllum Society

Presents

EpiCon XVI

Saturday, May 26th
8:45 a.m. to 5 p.m.

\$60.00

San Diego Zoo Safari Park Escondido CA

Speakers -- Silent Auction -- Cuttings and Plants for Sale -- Continental Breakfast and Lunch
See the new Epi Garden Trail -- Take a free tram ride around the park

Circle one: Chicken or Salmon

Please Print

Name _____

Address: _____ Zip: _____

E-mail: _____ Phone#: _____

San Diego Zoo member _____ YES _____ NO

I have a coupon (please attach to form) \$ _____

I will attend \$60.00 each Total Enclosed \$ _____

After April 1st — cost \$65

Make checks PAYABLE to SDES & send your reservations to:

Mildred V. Mikas 3502 Avenida Amorosa, Escondido CA 92029

Or register & pay on-line on our Secure Website—www.SanDiegoEpi.com using VISA/MC

Questions contact Mildred at mvmikas@cox.net or call @ 760-690-1124

Calendar of Events

February 2018

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

March 2018

ESA GENERAL MEETING Tue, Mar 6, 7:30 pm

Program: TBD.

Location: Arboretum of LA County, Bamboo Room.

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

April 2018

ESA GENERAL MEETING Tue, Apr 3, 7:30 pm

Program: TBD

Location: Arboretum of LA County, Bamboo Room.

GREENSCENE @ Fullerton Arboretum Sat-Sun, Apr 21-22

Location: 1900 Associated Rd. Fullerton, CA 92831.

ESA BOARD MEETING Tue, Apr 24, 7:30 pm

SPRING GARDEN SHOW @ South Coast Plaza Thur-Sun, Apr 26-29

Location: 3333 Bristol Street, Costa Mesa, CA, 92626.

May 2018

ESA GENERAL MEETING Tue, May 2, 7:30 pm

Program: TBD

Location: Arboretum of LA County, Bamboo Room.

SBES ANNUAL SHOW & SALE Sun, May 6

Location: South Coast Botanic Garden, Frances Young Hall

SDES ANNUAL SHOW & SALE Sat-Sun, May 12-13, Sat SALE ONLY

Location: Casa Del Prado, Balboa Park

ESA Sale & Show Sat-Sun, May 19-20, Sat SALE ONLY

Location: Arboretum of LA County, Ayres Hall

Epicon Sat, May 26, 8:45 am

Location: San Diego Zoo Safari Park, Escondido CA.

ESA BOARD MEETING Tue, May 29, 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 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	He-Ku	Tue, May 1, 2018
Be-C	Tue, Mar 6 2018	L-Mi.....	Tue, June 5, 2018
D-Ha.....	Tue, Apr 3, 2018	Mo-N.....	Tue, July 3, 2018