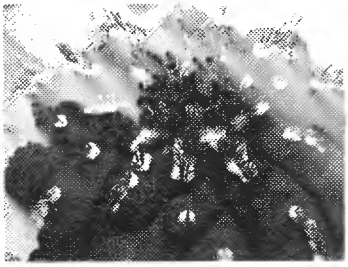
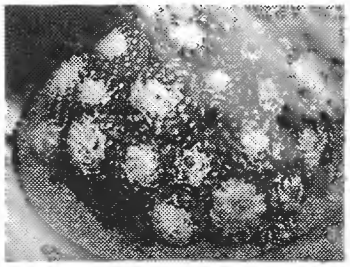
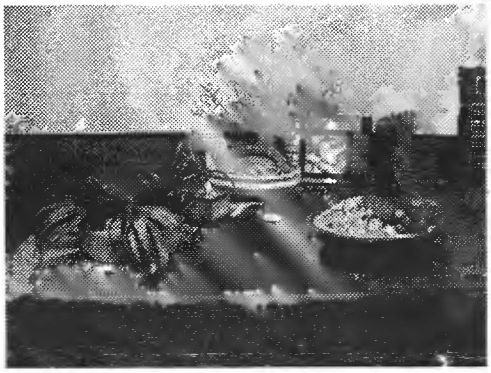
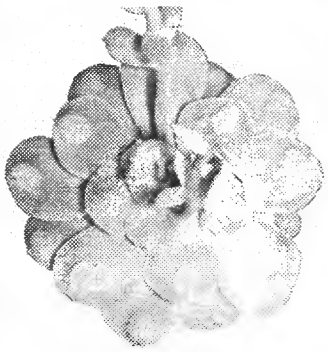
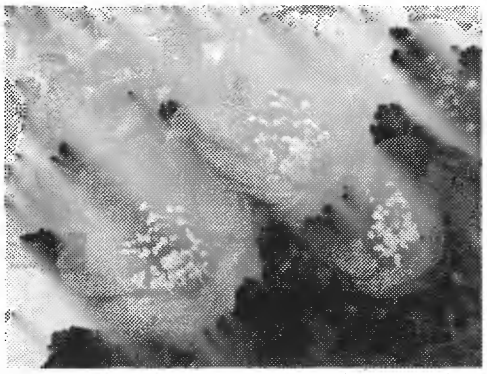
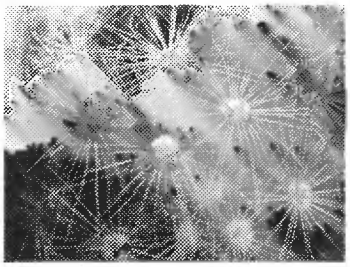
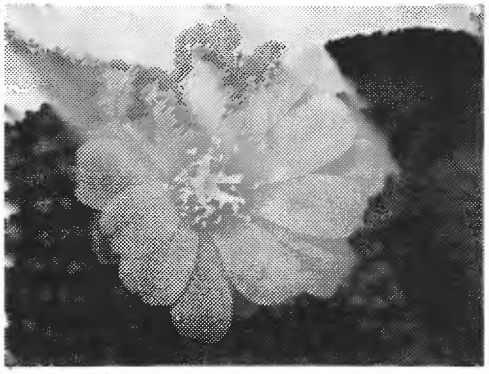
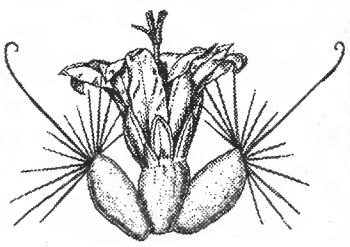
Espinas y Flores

Newsletter of the San Diego Cactus and Succulent Society, Inc.
Affiliated with the Cactus and Succulent Society of America
Volume 36, Number 7, Meeting on Saturday, July 14, 2001 at 1:00 PM
PROMOTING KNOWLEDGE, STUDY AND INTEREST IN CACTI AND SUCCULENT PLANTS, VISIT US AT SDCSS.COM.





A Dream Realized

Dylan Hannon will be our guest speaker at the July 14 meeting. He once lived in San Diego and was an active member of our club. Dylan worked at C & J cactus nursery for a while and then accepted a position at the Rancho Santa Ana botanical garden in Los Angelas where he works today.

His plant interests are unique to say the least and local collectors are always amazed at the selection he brings down to our sales. But, for as long as I have known him (over 10 years now) he has had a passion for the plants growing on a small island in the west Indian ocean; Soqotra. He has researched the plants, purchased books about the plants, wrote articles, and has grown several of it's endemic species from seed. His eyes would light up each time we brought up the idea of visiting that special place.

Well, in January of this year his dream of visiting Soqotra was realized. A tour group, which included Myron Kimnach, spent over 2 weeks combing the island for it's famous plants like *Dendrosicyos* and *Adenium socotranum.* They camped on the beaches, ate mostly fish, rice, and bread, and recorded hundreds of images, since collecting of any kind is prohibited. On July 14, in room 101, Casa del Prado, Balboa Park, at 1:00 PM, Dylan will relay his experiences and discoveries of this fantastic island. Join us and share in his dream come true!

COVER PICTURES are from, Marylyn Hernerson of her Echeveria 'Rain Drops', which the people chose as their favorite plant in the show (People's Choice Award). All other images were given to SDCSS by the roving digital photographer, Tim Nomer, from up north in Orange county. Thanks Tim. His images include all of the Trophy and Plaque winners at the awards table and some images of plants grown by Carol and Joe Wujcik, Phyllis Flechsig, Tom De Merritt, Dick Hulett and others. This year we broke some records and thee cacti made a grand showing. Read on to see how we did. The award winners are listed, starting on page 5.

Please send your letters, artwork, poetry, Cactus or Succulent of the Month articles, puzzles, comments, or criticisms, etc. to:

Tom Knapik
4669 71 street
La Mesa, CA 91941
Phone 619-462-1805 e-mail eyf 2000
Call 858-569-8510 for FAX

NEWSLETTER SUBMISSIONS ARE DUE BEFORE THE 14TH EACH MONTH UNLESS OTHER ARRANGEMENTS ARE MADE.

Espinas y Flores, the newsletter of the San Diego Cactus and Succulent Society, Incorporated, P.O. Box 33181, San Diego, CA 92163-3181, is published monthly with the exception of a combined May-June issue (11 mailings per year). Newsletter circulation is approximately 260, with approximately 20-30 issues going to educational institutions, botanical societies, cactus and succulent nurseries, local publications, related natural history events, exhibits, and other interested groups or individuals upon request. Membership includes the newsletter and is $15.00 per year, each additional member in the same household is $5.00 for bulk mail within the U.S.A.

 Volume 36, Number 7, Published, July 3, 2001.

President's Message...

WHAT A GREAT SHOW! Congratulations to all of us for putting on one of the best shows ever - and a very successful sales event. Thanks to everyone who came through and showed CACTUS as well as all the other beautiful SUCCULENTS. All the talk and pleading worked - the display of cactus was awesome and comprehensive. The whole weekend went very smoothly, thanks to the MANY members who volunteered long hours of hard work - it would never be done without YOU. Special thanks to our Show Chairs, Tom Knapik and Joey Betzler - great job of organizing. First time Head Clerk, Susan Hopkins did a fine job and thanks to those of you who spent Saturday morning clerking and tabulating - not the most exciting job but so necessary! The Sales team, headed up by Tom Birt, did a fantastic job - Joe Kraatz and Michelle Heckathorn running the two cash registers, ably assisted by Carol Jean Wolcott, Tom and Laura De Merritt, Spencer Maze and others who stopped by to relieve them - THANKS! For the first time in years there were no complaints heard regarding long lines.

SPECIAL THANKS ALSO TO OUR JUDGES (I do not envy your task of selecting the best from such an array of great plants) and Vendors, without you we have no trophies or sales. Not many people recognize the hard labor that goes into making this event work - the moving of all the sales tables in on Saturday night and moving them back out on Sunday morning - is an awesome task. Of course, all the vendors are there to get their sales set up, but this daunting task would never be completed so quickly without the strong backs and hustle of Tom Stiko, Mike Cullen, Tom De Merritt, Lee Badger, Jeff Harris, Mark Fryer, Ken Blackford, and John Williams - Great job guys, THANKS!

IN CASE YOU MISSED IT (though if you were there it would have been hard to) the 14 foot cactus on the Prado directing people to our show was designed and built by Tom Knapik in the last week before the show. It was quite an eye catcher and a great piece of work - Thanks Tom!

IF YOU HAVE IDEAS OR SUGGESTIONS for improving this event, please contact me or any board member. CONGRATULATIONS again on a job well done.

Sincerely, Pam Badger pambadge@earthlink.net

A Record Smashing Show!

A new standard has been set to which future shows will be compared. This event broke all kinds of records thanks to the team work of so many dedicated members.

A call for more cactus went out and our members graciously responded. We tripled our previous year's number of entries to over 300. Thank-you all. A special thanks to Juergen Menzel, Tom De Merritt, and Terry and Collette Parr, their cactus entries made up more than half. Our overall total also increased to over 775 entries (with 48 members showing). Can we top 1000 in 3 years? ***Let's do it!***

A special thanks to Pam and Lee Badger for the 3 great educational displays, Joe Kraatz for the unique succulent stamp collection, Rudy Lime for the wonderful bonsai succulents, and Joey Betzler for the many succulent images throughout the show. We have provided the public with an educational experience they won't forget and a reason to return for more.

As for sales, we shattered the old record for a 2 day sale by 6 thousand dollars. Two cash registers and credit card sales really helped. Thanks to Tom Birt, Tom De Merritt, and the SDCSS board for approving these wise investments. Vendors also took home more than ever, 75% for plants and 90% for other items. Hopefully next year more vendors will get involved with this ever growing event.

Lastly, we all need to thank Pam and Lee Badger for the great judges luncheon, Tom and Laura De Merritt for hosting the Saturday night party, and all the rest of the hard working members listed above who made this event the greatest single club cactus and succulent show in the country!

Sincerely, Your Show Chair, Tom Knapik

Calendar of Upcoming Events
— 2001 —

July

28 Quail Botanic Garden work shop on Natural Pest Control, call 760-436-3036 for info. (see note below for more details.

August

10-11 Mid-Iowa C&SS Show and Sale, Merle Hay Mall, Des Moines, Iowa. Info. from Rebecca Hoeppner 515-292-1289 or email her at rhoep10170@aol.com

18-19 Intercity Show and Sale, Los Angeles County Arboretum, Arcadia CA. Info. from Tom Glavich 626-798-2430 or e-mail: tglavich@aol.com

September

1 Huntington Symposium, Huntington Botanical Gardens, 1151 Oxford Rd., San Marino CA. Info. 626-405-2160 or 2277

8 SDCSS Picnic at Kate Sessions Park 11:00 AM to 4:00 PM - bring on the food and goodies!

15-16 Kansas City C&SS Show and Sale, Blue Ridge Mall, Kansas City MO. Call President Eva Allen 816-444-9321 emallen@earthlink.net for more details.

October

20-21 San Gabriel Valley C&SS Winter Show, Los Angeles County Arboretum, Arcadia CA. For info call Vince Basta 714-738-1422 or e-mail: cactoholic@aol.com

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FYI FYI FOR YOUR INFORMATION FYI FYI

Congratulations to the **Mark** and **Seton Fryer** on the birth of their son **Justin David**!

The Del Mar Fair's Flower and Garden Show this year had some notable displays made by Cactus and Succulent enthusiasts. First the **Palomar Cactus and Succulent Society** put up a display and won the Irrigation Award. The **PCSS** was also kind to offer SDCSS a place to offer our membership and information forms. **Stan Yalof** was the driving force behind the exhibit. SDCSS member, **Paul Maschka** was the San Diego Zoological Society contact for the cooperative exhibit that displayed a native garden and a Straw-bale structure at the Show, they won the Royal Horticulture Society Award and the San Diego County Water Authority's Non-commercial Award – first place. Member **Jeff Moore**, Owner of **Solana Succulents** in cooperation with **Tropic World** put on the best exhibit at the show. This exhibit swept up the following awards: the San Diego County Water Authority's Special Award – Best Succulent Garden, San Diego Horticultural Society, Most Creative Use of Plant Material, Unique Landscape, and the crème de la crème, the Paul Ecke Trophy.

Quail Botanical Gardens is offering a work shop by Andy Lopez on Natural Pest Control; Gardening. The class will be held at the Ecke Building on July 28 at 10:00 AM to noon. The cost is $5.00 for members and $10.00 for non members. It sounds like a good way to learn about alternatives to man-made chemicals. Call 760-436-3036 for registration and class information, and ask about some of the other offerings coming up. A summer concert series is starting , ask about it - what more could one ask for music AND plants!

Again **Stan Yalof** gave his talk on How Cacti Came to the New World at the June San Gabriel Valley CSS. To see the written version check out the June 2001 issue of the **Cactus Courier**. **Paul Steward** did a great job and with color too!

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ANOTHER GREAT JOB THIS YEAR BY CHRIS MILLER. The listing may seem cumbersome but the show chairs feel it is important to have a record of all the entries to recognize the exhibitors. They are the show and without their effort ... we do not have one. Please thank Chris when you see her for this listing.

As usual the editors apologize for misspellings and the strange (both people and plants) abbreviations! Many of the plant names can be figured out by looking up the division and class number in your May 2001 newsletter on the Classification Schedule. If you can't figure out the plant name you could ask the exhibitor.

The columns are arranged in order of class (1-89), pot size (A and B), and ticket color (Green, Yellow, and Blue - G, Y, B respectively). First, second and third place ribbon winners are next. When you look at the list carefully you will see some blank spots. In some cases this represents no first or second or third place being awarded, it can also mean that more than one first, second or third place ribbon was awarded. We hope that you do not need a magnifying glass to read these pages.

	BLUE — First Place	RED — Second Place	WHITE — Third Place
1 A G	Menzel/F. afilanensis	Menzel/B. subterranea	
1 B G	Fryer/F. grahliana		
2 A Y	J. Quijada/U. pentinifera		
2 A G	Menzel/U. crebispina		
2 B G	Wong/U. pectinifera		
2 B B	Minnich/B. hrevidcylindsia		
3 A G	Miller/P. setosa		
3 B Y			Stern/P. sp
3 B G	Parr/P. chrysacanthion		
4 A G	Miller/N. roseluteus	Miller/N. scopa	Miller/N. ueblemannia..
4 A G			Heckathorn/N. rosealatus
4 A Y	Parr/N. graessneri		
4 B G	Miller/N. mammilosas		
4 B Y	P.Badger/N. turecekianus	P.Badger/N.scopa v murielii	Stern/N. claviceps
4 B Y	Parr/N. ottonis parag..		
5 A G	Miller/G. spegazzini	Miller/G. sp	Miller/G. baldianum
5 A G	Miller/G. baldianum	Miller/G. sp	
5 A Y	Parr/G. spegazzini		L.Badger/G. asterium
5 B G	Fryer/G. bicolor		
5 B Y	De Merritt/G. monvillei		
5 B Y	Parr/G. multiforum		De Merritt/G. quehlia...
6 A B	Hulett/R. heliosa		Hulett/S. santiaglensis
6 A B	J. Kraatz/S. menesessii		
6 A G			Fryer/R. rauschii
6 A Y	J. Quijada/S. rauschii	De Merritt/R. buiningia	De Merritt/R. puchella
6 A Y	De Merritt/S. candiae	De Merritt/R. krainziana	De Merritt/Sebtia frankiana
6 A Y			De Merritt/S. mentosa
6 B G	Heckathorn/R. heliosa x albif..		
6 B Y	De Merritt/R. donaldiana	De Merritt/Sebtia flavispina	De Merritt/R. decrescens
6 B Y	De Merritt/S. albida		
7 A B	Avery/L.andalgensis		
7 A G	Martin/Echinopsis sp		
7 A Y	Parr/Lobivia saltensis		
7 B Y	De Merritt/Lobivia tiegeliana		Parr/W.lanata
8 A G	Fryer/D. crystallophyllus		
8 A Y	J. Quijada/M. matanzanus		Parrott/D. ferricola
8 B B	Minnich/Discocactus latispinus		
9 A Y			T Knapik/Copiapoa lavi
9 B B			P flechsig/C. krainziana
9 B G	Austin/C. tenussima		
9 B Y		De Merritt/C. hypogaea	De Merritt/ C. Hypogaea
9 B Y	JohnWilliams/Co. columna-alb.	De Merritt/C. barquitensis	De Merritt/Copiapoa botija
10 A B	Hulett/Neoporteria occulta		
10 A B	Hulett/Pyrocactus s		
10 A G	Miller/N. nidus senilis	Menzel/Neowerd. vorwerkii	Miller/N. horrida
10 A Y	Parr/Neoporteria nidus		
10 B G	Austin/Eriosyce aspillagae		
10 B Y	J. Quijada/Neo. occulata	De Merritt/M. crinifera	
11 B G	Fryer/Borzicactus icospganus		
11 B Y	De Merritt/Matucana aurantiaca		
11 B Y	John Williams/Denmoza rhodacantha		
12 A G	Fryer/Arrojadoa rhodantha	Heckathorn/Cleistocactus sp	
12 A Y	Parr/O. hendrick. densilatus	John Williams/E. melanstele	Parrott/A. estevesii
12 B G	Fryer/Espo. melanostele		
12 B Y	De Merritt/T. senilis	De Merritt/Oreocereus trollii	J. Quijada/A. penicillata
13 A B	Hulett/Wilcoxia schmollii	Menzel/Wilcoxia albiflora	
13 A G	Fryer/Arthrocereus sp.		

	BLUE — First Place	RED — Second Place	WHITE — Third Place
13 A G	Fryer/Wilcoxia viperina		
13 B B	Avery/Cereus forbesii	Miller/M. geometricans	Si Osgrove/C. sinilis
13 B Y	Harris/P. culcisaxicolus	T Knapik/Eulyc. sait piane	P.Badger/T. terscheckii
14 A G	Menzel/E. palmeri		Menzel/Echinocereus uuenzlerii
14 A G	Menzel/Echinocereus davisii		
14 B G		Si Osgrove/Echinocereus websterianus	
14 B Y	Parr/E. pectinatus		De Merritt/E. pacificus
15 A G	Menzel/T. alonsoi	Menzel/A. tobuschii	Menzel/P. bradyii
15 A G	Menzel/T. papyracantha	Menzel/T. urainzianus v mi.	Menzel/P. parabinei
15 A G	Menzel/G. mandragora	Menzel/Utahia sileri	Fryer/P. simpsonii crest
15 A G			Menzel/Sclerocatus wrightiae
15 A Y	Harris/T. polaskii	Harris/T. sch. v macrosh.	Parr/T.bicolor
15 B B	Minnich/Turbinocarpus polaskii		
15 B B	Minnich/Thelocactus phymatothele		
15 B Y	J. Quijada/Thelocactus lophothele		
16 A G	Menzel/C. alversonii	Menzel/C. compacta	Menzel/C. garesii
16 A G	Menzel/C. poselger. v valida		Menzel/C. obscura
16 A Y	L.Badger/C. runyonii	Parr/C. macromeris	
16 B B	Minnich/C. scolimoides		
16 B Y	Austin/Escobaria rosealia	De Merritt/C. nickellii	
16 B Y	Fryer/Cpryphantha radians	De Merritt/C. sulcata	
17 A B	Hulett/M. boolii	Hulett/M. beneckei wm1790	Hulett/M. duwei
17 A B			Hulett/M. baumii
17 A G		Menzel/D. balsasoides	Miller/M. celsiana
17 A Y	Tom Birt/M. saboae v saboae	Parr/M. viperina	
17 A Y	Tom Birt/M. schwarzii		
17 A Y	Parrott/M. lasiacantha		
17 B B	Minnich/M. theresae	Southwell/M. theresae	W Briggs/M. bombycina
17 B B		W Briggs/M. morganiana	Hulett/M. albrilanata
17 B B			Hulett/M. longimamma wm 9091
17 B G	Si Osgrove/M. plumosa	Austin/M. glassii	Miller/Mammilaria sp
17 B G	Rod Arena/M. pilcayensis	Rod Arena/M. geminaspina	Miller/Mammilaria sp
17 B Y	L.Badger/M. magnifica	P.Badger/M. sp	De Merritt/M. pilcayensis
17 B Y	Parr/M. geminispina	J. Quijada/M. glassii v ascens..	
17 B Y	J. Quijada/M. parkinsonii		
18 A B	Hulett/P. strobiformis	Hulett/Ariocarpus fissuratus	
18 A G	Menzel/Neogomesia agavoides		Austin/E. unguispina
18 A G	Menzel/Epithelantha chihuahuensis		
18 B B	Minnich/Ariocarpus kutschoulseyanus v elephautidens		
18 B G	Menzel/Ariocarpus hintonii	Menzel/Ariocarpus koischoubeyanus v eleph.	
18 B G	Menzel/Ariocarpus confusus		
18 B Y	Harris/O. denegrii	Harris/A. fissuratus	Harris/A. retusus
18 B Y			P.Badger/O. denegrii
19 B B		Hulett/Astrophytum myrostigma v quadricostatum	
19 A G	Fryer/Astrophytum myriostigma x capricorne		
19 A G	Menzel/Astrophytum asterias		
19 A Y	L.Badger/A. capricorne	Parrott/Astrophytum myriostigma	
19 B B	Minnich/Copiapoa hypogea		
19 B G	Miller/Astrophytum ornatum		
19 B Y		L.Badger/A. myriostigma	T Knapik/A. ornatum
20 A G	Miller/Ferocactus hystrix		
20 B Y	J. Quijada/Fero. herrerae	Parr/F. stainsii v pilosus	P.Badger/F. pottsii v alamo..
20 B Y			P.Badger/F. santamaria
21 A Y	Parr/E. longispinis		P.Badger/E. horizonthalon..
21 B G	Menzel/Echinocactus horizonthalonius (v muelleri)		
21 B Y	P.Badger/Stenocactus zagatacasensis		
22 B Y	Parr/Rhipsalis rauhior..	Parr/R. para.. v septent..	John Williams/R.hipsalis horrida

23 A B	Avery/Tephrocactus weberi		
23 A G	Menzel/Puna bonnieae	Menzel/T. alexandri	Menzel/P. fischeri
23 A G		Menzel/Micropuntia pygmaea	
23 A Y	Parr/Tephrocactus weberi		
23 B G	Menzel/Cyclindropuntia weingartiana		
23 B Y	De Merritt/T. artic. v olib.	Parrott/P. godseff. varieg.	Harris/Opuntia pachyzus
24 A G	Menzel/G. mexicana	Menzel/A. thionanthum	Menzel/A. peitscherianum
24 B Y	J. Quijada/L. principis	Klinefelter/Leuchten. sp	L.Badger/O. macdougalii
24 B Y	J. Quijada/Oriegocactus macdougalii		
25 A G	Si Osgrove/M. elongata crest		
25 A Y	Parr/M. carmenae 'crest'		Stern/M. pseudooper...
25 A Y			Wright/Cereus sp
25 B B	Minnich/Ario. retusus crest	W Briggs/M. elongatia crest	'Goldilocks'
25 B G	Miller/C. peru. monstrosus	Miller/M. crest	Miller/Opuntia crest
25 B Y	Henderson/M. gem. crest	J. Quijada/Lobivia sp	L.Badger/C. peruvianus crest
26 B B	Buckner/Stenocereus geometrizans		
26 B Y	J. Quijada/M. sp		
30 A Y	J. Quijada/Did. madag.	Harris/A. montagnacii	
30 B G	Menzel/Alluadiopsis fiherensis		
30 B Y		John Williams/Alluaudia ascendens	
31 A B	Hulett/N. sebettii	S Hammer/C. verucosa	S Hammer/Cylinro.. dyeri
31 A B		S Hammer/T. primosii	S Hammer/C. frutescens
31 A Y	Wright/Faucaria sp	Wright/Faucaria sp	
31 B G	Austin/Frithia minor		
32 A G	Ryan Wong /Aloinopsis scheoneesii		
32 B G		Ryan Wong/Marlothistella stenophylla	
32 B Y	Bunch/D. sphalmanthioi..	Bunch/T. schwantesii	Bunch/Titanopsis calcarea
32 B Y			Bunch/D. bosserianum
33 A B	Wujcik/Ceraria pygmaea	Wujcik/Ceraria namaquensis	
33 A G	Menzel/A. alstonii	Fryer/Talinum spinescens	
33 A Y	J. Quijada/Ceraria namaquensis		Parr/A. albissima
33 A Y			P.Badger/C. namaquanensis
33 B Y		De Merritt/Ceraria namaquensis	
34 B Y	Harris/K. tome. "Choc. Sol."	John Williams/K. Fang	Parr/K. beharensis 'Fang'
35 A B	S Hammer/A. marianiae	Hulett/Adromishchus herrei	
35 A B	S Hammer/Adromischus schulotianus		
35 A Y	Bunch/A. fili. s marlothii	Bunch/A. mariananiae v hallii	De Merritt/A. maculatus
35 B B	Wujcik/Tylecondon lutepsquarsrota		
35 B Y	De Merritt/Tylecondon caniculata		
36 A B	Hulett/Crassula Dorothy	P Flechsig/Crassula clavata	
36 A G	Ryan Wong/C. marnieriana	Tom Birt/Crassula ausiensis x susannae	
36 A Y	E.Marshall/Cras. pubescens	Noel/Crassula clavata	
36 B Y		Henderson/Crassula gollum	Noel/C. platyphylla
37 A G			Si Osgrove/ Aeonium kiwi
37 A G			Innis/S. clauatum Mex
37 A B		L.Badger/Aeonium smithii	
37 A B		Harris/Sedum multiceps	
37 B B	Hulett/M. polyphyllus	Wujcik/ Aeonium 'velour'	P Flechsig/A. 'Sunburst'
37 B B		Buckner/Monarthes muralis	
37 B G	Si Osgrove/S. arachnoideum	Virginian Innis/Sempervivum alpha	
37 B Y	Parr/A . sedifolium	Henderson/Aeon. nobile	Parr/S. furfuraceum
37 B Y			De Merritt/S. furfuraceus
38 A B	P Flechsig/Tacitus (graptopetalum) bellus		
38 A Y	Henderson/G. rusbyi	Harris/Pachyphytum bracteosum	
38 B Y		Harris/Graptopetalum pentandrum	
39 A G	Wead/E. setosa		
39 A Y	Henderson/ E. alata	E.Marshall/E. minima	
39 B B		Wujcik/E. minima	
39 B G	Si Osgrove/E. glauca		
39 B Y	Henderson/E. alta may	Henderson/E. Paul Bunyan	Henderson/E. Morning Light
39 B Y	Henderson/E. rain drops	Henderson/E. hyb	Henderson/?
39 B Y		Henderson/E. gibbiflora hyb	
40 A B	P. Flechsig/D. hybrid "Blush"		
40 A G	Si Osgrove/D. candida		
40 A Y	Harris/D. greenii		
40 B B	Wujcik/D. pachyphytum	Dychema/Dudlea gnornii	'White Sprite'
40 B Y	E.Marshall/D. candida	Harris/D. attenuata	
41 A G	Menzel/E. uondoi		
41 A Y	John William/E. croizatii	E.Marshall/E. milii	E.Marshall/E. milii
41 A Y			Henderson/E. milii
41 B Y	John Williams/E. didierioi. hyd	Parr/E. didieroides	S.Schell/E. milii 'Bill Byron'
42 A G	O'Daniel/E. platyclada		
42 A Y	Henderson/E. fasciculata	John Williams/E. confi.. sp	rhode...
42 A Y	De Merritt/E. didereoides		
43 A G	Ryan Wong/E. cylindrafoilia v tuberifera		
43 A G	O'Daniel/E. cap sainte mariensis		
43 A Y	J. Quijada/E. cylin. v tube.	L.Badger/E. francoisii	De Merritt/E. capsaitmar.
43 A Y			Parr/E. capsaitmariensis
43 A Y			Noel/E. decaryi
43 B Y	L.Badger/E. francoisii	De Merritt/E. cap-sanmariensis	
44 A Y	Cindy Wead/E. enopla		
44 B B	Beyer/E. unispina	Buckner/E. horrida	
44 B G	Miller/E. aeruginosa		
44 B G	Heckathorn/E. submammillaris		
44 B Y	L.Badger/E. horrida major	De Merritt/E. virosa	
45 A B	S Hammer/E. gymnocalycioides		
45 A G	Menzel/E. gymnocalicioides	Menzel/E. multiceps	Menzel/E. turbiniformis
45 A G			Menzel/E. mosaica
45 B B	W. Briggs/E. antisyphilitica		
45 B Y	De Merritt/E. abdulkuri	P.Badger/E. horrida major	
46 A Y	De Merritt/E. stellata	Wright/E. stellata	
46 B B	Southwell/E. porsistens		
46 B B	Dychema/E. squarosa		
46 B Y	Henderson/E. stellata '		
47 B B	Wujcik/Jatropha Gerlandierii		
47 B G	Miller/Monadenium reflexum		
47 B Y	Parr/Monadenium ritchiei		
48 A Y	Henderson/Senecio fulgens		
48 B B		Briggs/Senecio vitalis crest	
48 B Y	Parr/Senecio scaposus var caulescens		
49 A B	Southwell/P. multificlorem	S Hammer/P. cotyldonis	Wujcik/P. crassicaule
49 A B		Wujcik/P. klinghordtense	
49 A G	Tom Birt/P. otavease		
49 B B	Rudy Lime/P. ferulacium	Rudy Lime/P. alternans	
50 A G	Menzel/P. migiurtinus	Austin/S. neronis	Heckathorn/H. pillansii hyb
50 A G		Menzel/P. caput-viperae	Austin/Piaranthes foetidus
50 B G	Austin/Huernia urceolata	Austin/Hoodia gordonis	
50 B G	Austin/Tauaresia barklegi		
50 B Y		Harris/Orbea ciliata	
51 B B	Wujcik/Raphionacme flaraganii		
51 B G	Heckathorn/Ceropegia dichotoma variegata		
51 B Y			John Williams/Ceropegia fusca
52 A Y	John Williams/Fockea andalgalensis		
52 B G	Wujcik/Fockea		
52 B Y	John Williams/Fockea cylind.	Henderson/Fockea edulis	Stern/Fockea edulis
52 B Y			John Williams/Fockea edulis
53 A G	Heckathorn/P. geayi		
53 A B	S.Schell/P. bispinosum		
53 B B	Wujcik/P. rosulatum gracilis	Buckner/P. succulentum	P Flechsig/P. roalatum
53 B B			Wujcik/P. roalatum
53 B G	Miller/P. lalieii v saunderseii		
53 B Y	De Merritt/P. saund. v lealii	De Merritt/P. rosalatum	Noel/P. lamerei
53 B Y			E.Marshall/ P. densiflorum
54 A G	Menzel/C. oleracea		
54 A Y			John Williams/C. juttae
54 B B	Dychema/C. juttea	Buckner/C. cirrhosum	
54 B G	Menzel/C. uter	Menzel/C. seitziana	Menzel/C. currori
54 B G		Menzel/C. hardyi	
54 B Y	John Williams/C. juttae		
55 A G	Ryan Wong/Dorstenia gigas		
55 A Y	L.Badger/Dorstenia foetida		
55 B Y	L.Badger/Dorstenia foetida v foetida		
56 B Y	De Merritt/F. diguintii	De Merritt/F. mcdouglii	De Merritt/F. fermesa
56 B Y			De Merritt/F. fasicillata
57 A B	Wujcik/Adnia globosa		
57 B B		Wujcik/Adenia spinosa	
58 A G	Ryan Wong/Bursera odorata		
58 A Y	E.Marshall/Operculicaria decaryi		
58 B B	Wujcik/Bursera sp.	Wujcik/Bursera fagaroides	Dychema/Brachy. rupestris
58 B B	Rudy Lime/Operculicaria decaryi		Dychema/O. decaryi

58 B G		Ryan Wong/Bur. fagaroides	Fryer/Bursera hindsiana	
58 B Y	L.Badger/O. decaryi		Harris/Bursera odorata	
59 B B	W. Briggs/Dioscorea macrostachya			
59 B Y	Henderson/Dioscorea elephantipes			
60 A B	Southwell/Aloe x KG14		Avery/Aloe erinacea	
60 A G	Cena Martin/Aloe aristata			
60 A Y	Parr/Aloe boweia	Noel/Aloe comptonii		
60 B G	Heckathorn/Aloe nobilis			
60 B Y	Henderson/Aloe erinacea	Harris/Aloe conifera	Noel/Aloe suprafoliata	
60 B Y	L.Badger/Lomato. prostraatum	Parr/Aloe ramosissima		
61 A B	Avery/G. nitida v armstrongii			
61 A Y	Parr/G. "green ice"	J. Wright/G. sp		
61 B B	Southwell/G. armstrongii			
61 B G	Miller/G. nitida v batesonii			
61 B Y	De Merritt/G. armstrongii	Parr/G. liliputiana		
62 A B	Wujcik/Haworthia 'keyani'	Hulett/H. herbacea	Hammer/H. pumila 'Donut'	
62 A B	Wujcik/H. arochnoiclea			
62 A G	Tom Birt/H. truncata 'lime green'			
62 A Y	T Knapik/H. 'david grigsby'	Harris/H. truncata	Klinefelter/H. sp	
62 B G	Si Osgrove/H. sp			
62 B Y	E.Marshall/H. papilosa			
63 A G	O'Daniel/S. sp 'Ga'	O'Daniel/S. Bally 12681	O'Daniel/S. canalicul.. dwarf	
63 A Y	Parr/S. schweinfurthii			
63 B B	Avery/S. patens			
63 B G	O'Daniel/S. cv 'frosty spears'	O'Daniel/S. desertii	Miller/S. rhodesiana	
63 B G		O'Daniel/S. francisii chahin.	O'Daniel/S. schweinfurthii	
63 B Y	J. Quijada/S. kirkii v pulchra	S.Schell/S. sp	Parr/S. schweinfurthii	
63 B Y			Noel/S. suffuticosa	
64 A B	J. Betzler/Agave	Parryi		
64 A G	Miller/A. vict.-reg. f compac.		Wead/Agave parviflora	
64 A Y	Henderson/Agave filifera fma compacta			
64 B B	Southwell/Agave	Parryi vgate	Rudy Lime/Agave stricta	Dychema/Agave pumila
64 B B	Southwell/Agave toumeyana			
64 B G	Miller/Agave victoriae-re..	Miller/Agave toumeyanabella		
64 B Y	Parr/Agave horrida	John Williams/Agave patonii	Parr/Agave tou.. v bella	
65 B G	Heckathorn/Dasylinon wheeleri			
65 A Y	John Williams/Beaucarnea recurvata			
65 B Y	T Knapik/Beaucarnea guatemaleasis			
66 A B	Southwell/Dyckia x 'brittlestar'		Wujcik/Orthop. 'Firecracker'	
66 A Y			J. Quijada/Dyckia 'Brittle Star'	
66 B B	W. Briggs/D. ebdingii	P Flechsig/Dyckia hyb		
66 B B		Wujcik/Dyckia marnorlopootelle x bosteriana		
66 B G	Cena Martin/Deuterochonia brevifolia			
66 B Y	John Williams/Dyckia blackie			
66 B Y	J. Quijada/Deuterocohnia brevifolia			
67 A B	Wujcik/Begonia dregei			
67 A Y	E.Marshall/Plectranthus prostratus gurke		Wright/Tradescanthia sp	
67 B B	Buckner/Cussonia holstii			
67 B G	Heckathorn/Zamioculcas zamiifloia			
67 B Y	John Williams/Eulophia peter.		John Williams/E. paniculata	
68 A Y	Henderson/E. crest	S. Frost/E. lactea variegate crest		
68 A Y		P.Badger/P. lamerii		
68 B B	Buckner/E. spiralis			
68 B G	Miller/E. lactea crest			
68 B Y	Henderson/E. pa. rose crest	Klinefelter/E. sp	Henderson/E. runyonii	
69 A Y	Henderson/Aeonium moonglow			
69 B B	Wujcik/A. keeramanthus	Wujcik/G. batesiana	Wujcik/G. sp	
69 B G	Sundheim/E. lactea crest			
69 B Y	Parrott/G. gracilis	Henderson/Aloe nobilis variegate		
75 G	Virginia Innis/Cacti - Mammallaria			
75 G	Menzel/Navajoa (Pediocactus) 5 varieties			
75 G	Menzel/Eptaelantha 9 varieties			
75 Y	Parr/Mammillaria collection			
75 Y	P.Badger/Melocactus collection			
76 B	Huleti/Adro. collection	Hulett/Crassula collection		
76 G	Virginia Innis/Sedium collection			
76 Y		De Merritt/Lithops Collection		
77 B	Buckner/Sempervivum bowl			
77 Y		Parr/Dish garden of Haw.	Wright/K. baharensis	
80 B	Rudy Lime/Bursera michrophylla		Rudy Lime/E. misera	
81 A G	Menzel/M. capensis			
81 B B	Rudy Lime/Jatropha cuneata			
81 B Y	De Merritt/L. schottii mon.	P Flechsig/B. filicifolia	Hulett/M. gigantea	
82 A B	Minnich/Aztekium ritteri			
82 A G	Menzel/Ariocarpus scapharostrus			
82 B B	Rudy Lime/F. farciculata	Buckner/Beaucarnea buatamaniensis	Yucatan	
82 B B			Buckner/Ficus petiolavis	
82 B Y		Si Osgrove/M. gemnispina		
82 B Y	J. Quijada/M. meyranii			
83 A B	Hulett/A. myriostigma monstros	Hulett/Espostoa nana		
83 A G	Menzel/M. luethyi			
84 B B	P Flechsig/G. guenekeri	Rudy Lime/Ficus palmeri		
84 B G	Menzel/Ariocarpus trigonus		Ryan Wong/P. succulentum	
84 B G		Fryer/Ariocarpus Hyb A. scaph x A fissuratus		
84 B Y	J. Quijada/O. macdougalii	J. Quijada/Melocactus ruestii		
85 B	Buckner/Semper. celebense	Buckner/A. filiferiva	Hulett/Crassula suzannea	
85 G	Menzel/E. piscidermis			
85 G	Fryer/T. schmie. v klinkeer.	Menzel/M. sanchez-mejoradae		
85 Y	Henderson/Setiechi. mira.	P.Badger/Agave pumila		
86 B	Hulett/miniature cacti	Buckner/Ery. humeana	Rudy Lime/P. discolos	
86 Y	Wright/Miniatures			
87 B	Rudy Lime/Operculicaria decaryi		Buckner/Ficus thonningi (S. frica)	
87 B	Rudy Lime/Operculicaria decaryi			
88 B	J. Kraatz/Display of Succulent stamp collection			
88 B	Baja Volunteers/Ferocactus Exhibit			
88 B	Rudy Lime/SMOLA -Succulents, Medium of Living Art			
88 B	Baja Volunteers/Exhibit Baja Gardens at Wild Animal Park			
88 Y	P.Badger/Educational Display			
88 Y	P.Badger/Educational Display			
88 Y	P.Badger/Educational Display			

Trophy Winners for the Spring 2001 Show

Best Succulent Bonsai	Rudy Lime	Opercularia decaryi
Best Baja Plant	Rudy Lime	Jatropha cuneata
Best Graft	Dick Hulett	Astrophytum myriostigma monstros
Best Mexican Plant in Show	Woody Minnich	Aztekium ritteri
Best Plant Grown from Seed	Juergen Menzel	Ariocarpus trigonus
Best S. D. County Succulent	Rudy Lime	Bursera microphylla
Best Miniature	Mark Fryer	Turbi. schiedickianus v. klinkerianus
Best Novice Cactus	Jergen Menzel	Echino. horizonthalonius v. moelleri
Best Cactus	Woody Minnich	Buinindia brevicylindrica
Best Epiphyte Cactus	Terry & Collette Parr	Rhipsalis rauhiorum
Best Mammillaria	Woody Minnich	Mammillaria theresae
Best Opuntia	Jergen Menzel	Puna bonnieae
Best Sansevieria	Jean O'Daniel	Sansevieria sp. 'nova'
People's Choice	Marylyn Henderson	Echeveria 'Rain Drops'

Best Pachycaul or Caudiciform	Rudy Lime	Opercularia decaryi
Best Cactus	Joe Quijada	Mammillaria matudae
Best Succulent	Marilyn Henderson	Fockea edulis
Best Novice Succulent	Jergen Menzel	Pseudolithos migiurtinus
Best Agave	Rowena & Steve Southwell	Agave parryi variegate
Best Aloe	Pam & Lee Badger	Lomatophyllum prostratum
Best Echeveria	Marilyn Henderson	Echeveria 'Pappy's Rose' crest
Best Euphorbia	Steven Hammer	Euphorbia gymnocalycioides
Best Mesemb	Dick Hulett	Neohenrich sebetti
Best Pelargoium or Sarcocaulon	Rudy Lime	Pelargonium ferulacium
Best Educational Display	Baja Volunteers	Ferocactus Display
Best Exhibit	Joe Kraatz	Succulent Plants Stamp Collection
Most Artistic Display	Rudy Lime	SMOLA Display
High Points 50 or Fewer Entries	Collette & Terry Parr	Highest Points, less than 50 plants
Sweepstakes Trophy	Juergen Menzel	Highest Points

ECHEVERIAS

by Marylyn Henderson

I consider Echeverias the most colorful and most beautiful of all succulent plants. The color is awesome in a range from white through shades of green, pink through shades of red to purple and brown. The more intense colors are produced in cool weather of February and March from the crowding of the red and blue pigments (anthocynins) in the leaves. However, the appearance can be dramatically changed by growing conditions — amount of light or sun, and ground versus pot culture.

There are leaves that measure only a few millimeters long to some measuring 45 centimeters long. There are many leaf shapes and textures, from glabrous surfaces to some with heavy waxy bloom on their leaves. If you touch this bloom, it mars the leaves and the bloom doesn't come back. With a very large collection, you may have flowers throughout the year in colors of pink, yellow, orange, and red, and combinations of these colors. Some varieties have very large flowers.

The explanation of the leaf arrangement on *Echeveria* rosettes was fascinating to me. Instead of pairs of leaves being opposite one another, as in *Crassula*, or leaves spiraling in a rosette, as in Aloes and Agaves, the arrangement of *Echeveria* leaves is referred to as 8/21 phyllotaxy, an orderly spiral, which, after eight full turns and 21 leaves, returns to a point opposite the first leaf. This is the same as the arrangement of scales on pinecones, and is known as the Fibonacci angle, which is 8/21 of a full circle, named after Leonardo of Pisa in the 13th Century.

There is a lot of history about the earliest *Echeveria* drawings and in naming them, which can be found in Carruthers and Ginn's book. To give you a brief summary: In 1827, the Swiss Botanist Augustin de Candolle, in an address before the Society of Natural History in Geneva said: "I have given to this Mexican genus the name of *Echeveria* in honor of Echeverria, a gifted botanical draftsman and creator of the most beautiful drawings of the *Flora Mexicana* begun under the direction of Messrs. Sesse, Mocino and Cervantes."

Echeveria is one of the many *Crassulacae* families, which includes Aeoniums, Cotyledons, Crassulas, Dudleyas, Graptopetalums, Kalanchoes, Sedums and many more. Echeverias are new world plants, exclusively from the Americas. They grow from Southern Texas through Mexico, Central America, and into South America, where many more have been found in recent years. There are over 150 named species and varieties and numerous hybrids. Over 60 species are native to the three Mexican states of Hidalgo, Oaxaca, and Puebla.

A few Echeverias are xerophytic and grow in dry regions, but the rest cannot be considered desert plants. They grow where there is a wide variation in rainfall and mostly

Above is the best *Echeveria* picture I have in my archives. It is not *E. subrigida* any more, renamed *E. canté*. I still think this one is the most beautiful.

in areas of summer rain, and many almost completely dry in winter. Plants grow from about 3,000 ft. elevation to over 14,000 ft., with most found in the high mountains in reasonably moist and cool areas. They grow on rocky hillsides among bush and pine forests or on vertical cliff faces, almost always seeking shelter of low bushes and the shady north slope of a hill, with denser tree cover and humus deposits. But there are many found almost alone on mountaintops in unfiltered sunlight.

In very warm, moist, humid areas, some Echeverias grow as epiphytic plants with the wind distributing seeds that cling and grow in almost any medium. *Echeveria rosea, maxonii, nuda,* and *racemosa* are found growing on roofs, tree bark, and moss-covered branches, along with Tillandsias and orchids. *Echeveria elegans* is one of the more hardy, growing in the mountains northeast of Mexico City at elevations to 10,000 feet.

In the wild, Echeverias shed their lower leaves during the dry period as a way of conserving moisture. When the leaves shrivel on cultivated plants, they should be removed because fungus may develop in the dead leaves, which can rot the entire plants. The dead leaves are also a haven for mealy bugs. Mealy bugs and aphids on the flowers are the principal pests. I spray aphids with rubbing alcohol. I don't like to spray with chemicals, and alcohol is toxic to insects but not to me. However, I do use systemic granules in the soil of established plants to keep from getting mealy bugs in them. It is not satisfactory to put the granules in soil when you are starting plants, as it seems to be detrimental to the formation of roots. If you are transplanting and not removing the soil from the roots, systemics can be added at that time.

When plants have lost a lot of lower leaves and become leggy, the heads can be cut off, leaving an inch or so of stem attached. Allow them to callous and then re-root in fresh soil. For further propagation, keep the old trunk potted and continue to water it, being careful to let the top of the trunk callous before you get it wet. Offsets will usually grow at some of the old leaf scars on these trunks. These can be detached and potted when large enough to handle, and should quickly root and grow.

Flower stalks can be removed from the plant and put in soil in a pot and may also grow offsets. Plants can also be grown from some of the thicker leaf varieties by laying them on slightly damp soil, out of the sun, but it is rare to get hybrid leaves to offset. Echeverias can be grown from seed, but the seed is like dust so it is difficult to remove the chaff from the seed.

I use Supersoil and agricultural pumice, half and half; and I add a bit of agricultural lime, bone meal, and a bit of superphosphate to my potting mix.

References:

Carruthers and R. Ginns, *Echeverias*
Eric Walther, *Echeveria*
Chidamian, *The book of Cacti and Other Succulents*

OF STOCK AND SCION

A CACTUS-GRAFTING PRIMER

By Mark Fryer

"THE WAYS OR FASHIONS OF GRAFTING are legion. There are as many ways as there are ways of whittling. The operator may fashion the union of the stock and the scion to suit himself, if only he apply cambium to cambium, make a close joint, and properly protect the work." ... from Liberty Hyde Bailey, Standard Cyclopedia of Horticulture, 1928. Anyone with an interest in growing succulent plants should have a basic knowledge of grafting. If not for the sake of maintaining and increasing one's own collection, then at least for the sake of explaining those funny little red-topped "Hibotan" Gymnocalyciums so often for sale at the local drug store!

I encourage anyone with an interest in growing succulent plants to learn to graft. If not to propagate things more efficiently, then at least for the sake of a rescue method in case things go

horribly wrong. The basic concept behind any graft is to create a new root-base (under stock) for the chosen progeny (scion) to grow from.

Most grafts have two primary pieces; the under stock and the scion. Usually the idea is to unify the two into a single plant, whereby the scion can receive nutrients and moisture through the root system of the under stock. Compatibility between under stock and scion can vary depending on the plant family one wishes to graft in.

For the sake of this article I will focus primarily on the *Cactaceae*, but these techniques work well with many other families of succulent plants as well, including (commonly) *Apocynaceae*, *Euphorbiaceae*, and the *Asclepiadaceae*. Some cross-family grafts have also succeeded historically, involving *Dideraceae* and the *Cactaceae*, although I do not know if these grafts ever produced the same kinds of results same-family grafts exhibit. Selecting an under stock will vary depending on your level of interest, and what does well for you in your growing conditions.

I suspect some contempt towards cactus grafting may have to do with the commercially available mutants grafted on *Hylocereus undatus*, which has poor cold tolerance, and little drought tolerance either. These grafts are designed to quickly produce thousands of offsets and bring them to market quickly, with little or no concern for the end result. I would assume the vast majority of these novelties die and leave a slightly sour taste in the mouths of their owners, both towards cacti and especially grafted cacti.

So, the first question to be addressed is, "What am I trying to achieve?" Am I rescuing a plant and needs a short-term rootstock, or am I trying to maintain a plant riddled with "root-fear" that needs a new permanent base? Perhaps I'm trying to propagate a difficult to grow plant, and I'm looking for a method besides tissue culture where I can create copious clones in a short amount of time. These kinds of questions need to be answered before making that first cut.

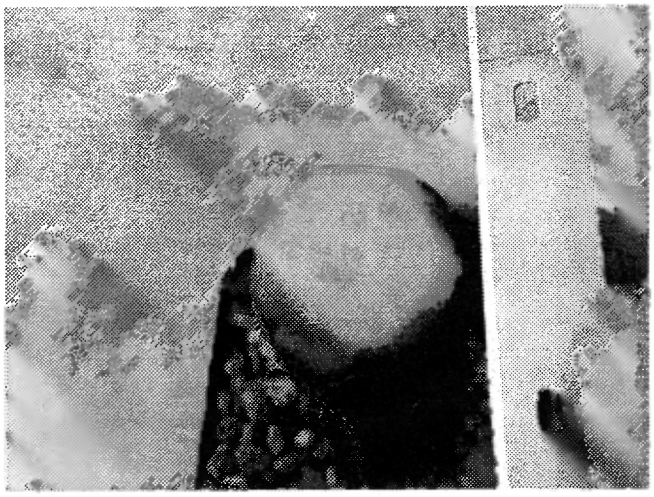
Generally, I find the inspiration for grafting something usually falls into one of two categories: either maintenance or propagation. Often it's a combination of both, coupled with a desire to speed things up. On the propagation side, I've noticed the majority of these grafts are built on columnar cactus or *Pereskia/Pereskiopsis* under stocks. On the maintenance side, either a smallish globular cactus, or small *Opuntia* that may eventually become invisible to the viewer. There are some exceptions and variations to these ideas, so please view these opinions as they are: opinions!

There are a number of other good reasons to graft cacti. In fact, growing some genera almost seems to require it. *Blossfeldia* and *Aztekium*, for example, are next to impossible to grow on their own roots. Many mutants and crests can also be rather dependent on an under stock to maintain their forms in cultivation. One of my primary interests initially in learning to graft, was born out of my interest in germinating cacti from seed. I simply did not want to wait for a decade to see what that flower would look like!

Most cactus-grafts involve a columnar type of under stock, I use *Harrisia (Eriocereus) jusbertii* as my 'universal' under stock. Just about anything that needs to be salvaged or pushed will thrive on this under stock for a good period of time. It has a low rate of rejection, is slightly cold tolerant, survives well on neglect, and re-roots easily. Some other good columnar choices are

Placing the sion on the under stock can be easy.

Myrtilocactus geometrians, *Stenocereus victoriensis*, *Trichocereus spachianus*, and *Trichocereus pachanoi*. For seedling grafting, my choice is *Pereskiopsis velutina*. Another commonly used under stock for very young seedlings is to use another more vigorous growing seedling, and graft a seedling to a seedling. For longer-term 'maintenance' grafts, I've used *Echinopsis*, *Turbinicarpus*, *Echinocereus*, and even *Opuntia*. The idea here is to create a permanent rootstock that will eventually be overtaken by the scion, and obscure itself as nothing more than roots. All of these various types of under stock choices blend



The final cuts to sion and under stock are important.

into one another, and as one experiments with various genera and species the choices become almost automatic. Experimentation is key!

Cutting to the chase, the basics of how to make a graft are fairly straightforward. As in cooking, the French phrase about everything "Dans son endroit" or "in it's place" before that first slice is very important. Assuming you've picked out your candidates for under stock and scion, you'll need a sharp knife, two clean blades (I use el-cheapo razor blades), isopropyl alcohol, and an appropriate method of maintaining pressure at the initial graft union.

The first cuts I make are pure preparation, primarily designed to remove the larger portions of what will get in the way of making the second cut (and potentially third if I fail on the second) when I want to reveal the freshest tissue possible for the shortest period of time.

The first cut on the under stock I will sometimes do well in advance, to see how the stock will potentially react to having it's primary growth zone interrupted. Will it cup or will it bulge? Bulging is good, cupping is bad. Plus, I want to remove any spines that might create space between the stock and the scion, and give a slightly beveled edge to the periphery of the cut area.

Preparing the scion is much the same principle. Remove excess spines and cut away at the base until fresh healthy tissue is visible, leaving enough room to cut and expose fresh tissue to bond with the fresh tissue on the under stock. Providing that both scion and stock are properly prepared at this point, all that's left to finish making the graft is to make a very smooth and quick cut in both pieces, align the vascular bundles of both, and apply some constant pressure to the union. Positioning the scion on the stock properly may take some practice to get the right 'feel' for the fresh union. Critical to the success of the graft is making sure there are no air bubbles or foreign objects (dirt, dust, or bits of plant material) in between the two halves. It is also important when grafting cacti that you work as fast as possible, as freshly cut cactus tissue will begin to callous immediately upon being cut. The tissue most critical to the success of the graft is the vascular bundle tissue, which surrounds the "core" of the stock and scion. Once these cells have merged and are able to exchange with one another, the graft should begin to grow.

There are as many different methods of applying constant pressure to a freshly cut graft union as there are grafters who do them. After a few years of trial and error, I've come to prefer using a short piece of nylon string with fishing weights attached to both ends. I can start with the lightest amount of pressure on top of the union, and gradually add more weight if needed. The older and tougher the material, the more weight one will need to add. I always try to err a little on the light side, since if the graft fails I'll simply have two calloused pieces of cactus. If I put too much weight on the fresh union, there's a potential to crush the union, and the graft will fail. A commonly used attachment technique is rubber bands wrapped under the pot and over the graft union. I actually don't care for this much, as I've had problems of rubber bands failing in the heat of a greenhouse, and subsequently launching scions into outer space. I've also found that after a day or two, the dynamics and pressures on the graft change so much that having a constant, gravity-driven technique is simply more stable than one that relies on elasticity. I do use rubber bands on un-rooted grafting stock, as the whole thing is more stable when it can all be wrapped up. I've heard people suggest all sorts of crazy things in terms of adding substances to both sides of the equation (fungicide, rooting hormone, super-glue, etc) but cannot imagine that any of these practices would result in a healthy graft.

Seedling and tubercle grafting essentially uses the same standard flat-graft done in miniature. Most seedlings and tubercles don't require any pressure mechanisms, simply that the freshly cut union be in a warm, humid environment, safe from vibration or movement for at least 72 hours. The 'weight' of the seedling or tubercle is usually sufficient to create the bond.

As a final word, I hope to be able to answer some of your questions about this in person at the July meeting, and will bring along some examples of successes and failures for your perusal. I'll also bring some materials and tools to demonstrate my techniques, and will be happy to give anyone interested some hands-on training.

PLEASE BRING IN YOUR GRAFTS

Issue Highlights

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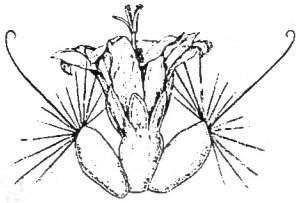

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