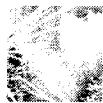
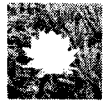


JUNE

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Central SPINE

CENTRAL ARIZONA CACTUS & SUCCULENT SOCIETY

President's Letter June 2002

For June, July, August, and September, we will be meeting in the new Weisz Learning Center classrooms, which have great air conditioning and are close to handicapped parking. The board meeting at 1 pm will be in the Marley Education Building next to the Weisz Center. These are the new buildings east of the new admissions booths; go through the wrought iron agave gate. There is a DBG map online at: http://www.dbg.org/images/map_big.jpg.

Our summer buying trip to San Diego will be August 3-5. Remember, it's a lot cooler there! Here is the itinerary:

Friday August 3: Depart 6 am. Drive to Rainbow Gardens Book and Plant Shop. Check into Premier Inn, San Diego.

Saturday, August 4: Cactus King Nursery; Rancho Soledad Nursery; Solana Succulents; Canyon Pottery.

Sunday, August 5: Breezeway Nursery; Tropicworld; Depart for Phoenix.

Hotel rooms are \$61.99 for singles and

\$66.99 for doubles plus tax. We have until July 19th to cancel or change the number of rooms required. Each person or couple must make their own reservations. Contact the hotel at (619) 223-9500 to guarantee with a credit card, referencing the Central Arizona Cactus and Succulent Society.

There is still room on the bus. Contact Jo Davis to reserve a spot.

Our hot season begins. Some plants just keep growing and appreciate all the water you can give them. For example, most Baja California plants other than those in the northern winter-rain belt just below the US border. These winter-rain species include *Bergerocactus emoryi*. Surprisingly, the cardon, *Pachycereus pringlei*, gets almost exclusively winter rain in habitat in Baja California, and summer rain in Sonora. It likes plenty of water year-round in Phoenix.

Columnar cacti from South America and Mexico get large quantities of rain in the summer, 20 inches or even much more. Don't skimp on watering them here or they will not grow much.

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OFFICERS

Officers (1 year term):

President

Leo Martin
(602) 852-9714
leo1010@attglobal.net

Vice President

Judy Brody
(480) 951-1363
popymallow@aol.com

Secretary

Sue Daley
(623) 876-0060
DaleySPUDBUD@aol.com

Treasurer

Pam Bass
(480) 460-4369
pambass@cox.net

Past President

Cathy Babcock
(480) 921-9396
cbabcock@dbg.org

Directors (2 year terms)

Term ending December 31, 2002:

Jerry Chapman
(480) 945-6543

Doug Dawson
(480) 893-1207
doug.dawson@gcmail.maricopa.edu

Scott McMahon
(480) 657-7786
smcmahon2@mindspring.com

Term ending December 31, 2003:

Carol Clapp
(520) 908-9001
cactusnews@earthlink.net

Ray Daley
(623) 876-0060
DaleySPUDBUD@aol.com

Richard Maxwell
(602) 252-6101
nuttster@attglobal.net

Jeff Stinebiser
(602) 955-7819
jkstinebiser@aol.com

CSSA Representative

Henry Triesler
(480) 946-1122

Librarian

Paul Schueneman
(602) 381-9859
Schue888@aol.com

Bug Of The Month

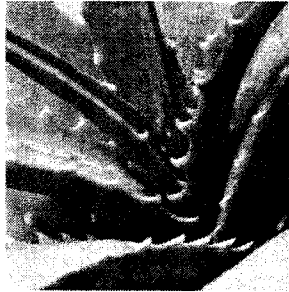
COCHINEAL

by: Sue Hakala

When Cortez's conquistadors arrived in modern day Mexico City in the 1520's, they were dazzled by the vivid colors used by the natives. The bright, rich red used in garments worn by royalty, and that marked the skin of women, was of particular interest. The dried powder was sent to the King of Spain, and by the year 1600 this dye was second to only silver and gold as the most valuable export from Mexico. The beautiful red color was adapted by the Roman Catholic cardinals and bishops, kings and queens, and, later, colored the famed British redcoats. The first U.S. flags were colored by using the popular dye. Currently, cochineal is one of the few red dyes approved by the FDA. It is used to provide the red in candies, beverages, lipsticks and other common items. We have the tiny cochineal bug to thank for supplying this dye.

What's that white cottony stuff on my cactus? *Dactylopius coccus*, cochineal, is related to aphids, scale and mealy bugs. They live on prickly pear cactus and chollas as a parasite. The bug lives under a white, sticky, fluffy-looking layer that looks like cotton candy, secreted by the female around her body. She hides herself behind it as she sucks out the juices of the plant. The carminic acid in her body fluids provides a dye

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President's Letter June 2002 ...continued from first page.

The whole group of *Borzicactus* - *Cleistocactus* - *Haageocereus* - *Matucana* - *Morawetzia* - *Oreocereus* loves to drink water in the heat. They won't flower if they are kept dry. Likewise, *Echinocactus*, *Echinocereus*, *Echinopsis* (including *Trichocereus*), and *Ferocactus* need summer watering.

Most *Mammillaria* need a dryish rest when it's really hot, except subgenus *Cochemiea* and the central and southern Baja species like *M. schumannii*. Of course, those from the Sonoran desert also get summer rain in the heat, like our native *M. grahamii*.

Lobivia, *Rebutia*, and *Sulcorebutia* are very sensitive to watering during hot weather. Best is to hide them in the shade or even in the house and keep dry until night temperatures cool down in September or October.

Few mesembs need any water at all during the summer. Many will be happier if placed in full shade and kept completely dry. This is especially true for the obligate winter growers like *Cheiridopsis*, *Dactyloopsis*, *Mitrophyllum*, and *Monilaria*. Go ahead and water *Bergeranthus*, *Cerochlamys*, *Dinteranthus*, most *Lithops*, *Pleiospilos*, *Rhombophyllum*, and *Schwantesia* all summer, but let them go bone dry for a day or so between waterings. *Aloinopsis*, *Faucaria*, and *Nananthus* are considered spring through summer growers but they can't take our heat very well; for many people they need a dry rest in the shade during the height of our summer, with watering resuming when nights cool.

Agave and most *Aloe* will need regular summer watering but few of these tolerate full summer sun.

Those of us who manage to keep members of family *Crassulaceae* alive keep them in the shade or in the house. My *Dudleya* are in the house in a window, dry, and I will not water them until October at the earliest. They will drop leaves one by one all summer. It takes strength not to water a plant that is drying out one leaf at a time, but water in the heat is usually fatal for *Crassulaceae*.

Haworthia growers keep them as cool as possible in the summer, usually in full shade, and water very carefully. They don't like being

dry for too long, losing their roots. Should this happen, take the unrooted plant into the house and store it dry until nights cool down. *Haworthia* won't root in the heat but they sure will rot if kept too wet.

Not many plants can take our full summer sun. Some shade is welcome by most. We have had so little rain the prickly pears and chollas are dying in the deserts surrounding us. Your landscape plants will appreciate some extra water. Let a hose trickle overnight. Or, use a small nail to punch a hole in a 5 gallon bucket or 1 gallon milk jug, set next to your plant, fill with water, and let the water trickle in. Less runs off this way. Be sure not to leave filled buckets where small children may find them.

This month's speaker is CACSS member and past president Jim Elliott of Arizona Cactus Sales in Chandler. He will be talking about many of the wonderful Baja California plants we can grow with ease in the Valley, much to the envy of most of the rest of the world.

Leo A. Martin



Plant Of The Month *Pterodiscus* and *Uncarina* by: Leo A. Martin

P*terodiscus*, named by Hooker in 1844, and *Uncarina*, named by Stapf in 1895, are genera of tuberous plants in the sesame family, Pedaliaceae. *Pterodiscus* are from Africa and *Uncarina* from Madagascar. They both experience summer rains and winter drought. They have subterranean tubers which are often raised in cultivation. *Pterodiscus* has annual stems, and *Uncarina* are trees or shrubs, often trained into bonsai. Both produce hairy, sticky leaves. Flowers are generally large and attractive; from red through pink, yellow, and orange in *Pterodiscus*, and yellow or white in *Uncarina*.

Both genera are very easy to grow. Mine begin growth as soon as daytime temperatures warm up in February or March; sometimes even January. Once growth begins, I keep them constantly moist or flower buds drop. I use very large pots because they use so much water during our heat. For example, I would put newly-acquired plants from 2 inch pots directly into 8 inch or even 10 inch pots. I am rewarded by rapid growth of the tubers and plenty of flowers. I use a mix of about 75% sand and silt and 25% plain potting soil. I also fertilize heavily; fertilizing with every watering would suit these plants fine.

As winter approaches they drop their leaves if exposed to the weather, though plants kept warm will grow all year. They will tolerate temperatures near freezing but are frost-sensitive. Keep dry all winter and resume watering when weather warms.

Spider mites are a problem for *Pterodiscus* and

white flies for *Uncarina*. Spider mites manifest during warm, dry weather (or artificial heat) as silvery cobwebs on the undersides of leaves, and whitish spotting on the surface of the leaf where the bug has sucked leaf cells dry. They are easily treated by spraying both leaf surfaces with plain water every few days. Adult white flies themselves do not cause damage; nymphs suck on leaves, however. If adults are seen, nymphs can be seen as tiny yellowish bumps on the undersides of leaves. Treatment is spraying undersides of leaves with rubbing alcohol or soapy water to kill nymphs, and trapping adults with yellow paper or plastic smeared with Vaseline.

Individual *Pterodiscus* plants often produce the distinctive four-winged seed. The name means "winged disk", which the seed does resemble. *Uncarina* require mechanical pollination, by beetles in habitat. If you wish to pollinate your own *Uncarina* plants, you must extract the pollen mass with a tweezers, squeeze it until the pollen squirts out, and then place it on the stigma of another plant.

Uncarina seed pods are adapted to dispersal by large animals. They are covered with vicious hooks and are worse than jumping cholla stems. Be sure you know what you are doing if you handle them.

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so powerful that it will color anything it touches with flaming red. In Peru, the bugs are harvested by hand, dried, then pounded into a fine powder. It takes about 70,000 female bodies to make one pound of dried powder.

When you find cochineal on your cactus, likely, others in your neighborhood have it too. It can often plow through a neighborhood, destroying all the opuntias and chollas it encounters. The bugs are spread on the feet of birds.

Control: The most effective way to deal with cochineal is to dab the fuzzy protective layer with alcohol, as this kills the bug. If you have a small infestation this can work or, you can blast them off with a strong spray of water. As soon as you notice the white fluffy stuff go at. They spread very quickly, and will kill your plant. You will need to repeat the water blast in 7 days, and again in 14 days to kill the new hatchlings and egg cases. Be sure to get in the pads when they join the plant as this is a favorite hiding place.

Large infestations will need Malathion applied in the 7- and 14-day cycle. Add a little dish soap to help the chemical stick to the plant better. You will know that you have been successful in killing them when the white stuff looks gray.

Squeeze or poke the fuzz, and if there is no red, they are dead.

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Upcoming Events - CALENDAR

- June 30** Jim Elliott, Arizona Cactus Sales, Chandler, Plants of Baja California
- July 28** Scott McMahon, CSSA Past President, Growing Euphorbias
- August 2-4** Buying trip to San Diego. Contact Jo Davis for details (480)839-3792
- August 25** TBA
- September 29** Anthon Ellert: Euphorbias of Matabeleland, Zimbabwe, Africa
- October 27** Silent Auction of Member's Plants
- November 17** Woody Minnich
- December 8** Holiday Party

Central Spine is the newsletter of the Central Arizona Cactus and Succulent Society. All opinions are those of respective authors. Publication herein does not imply that CACSS or any CACSS members agree with any statements published.

Change of Address: contact our Treasurer, Pam Bass, with any changes of address.

C.A.C.S.S.
PO BOX 63572
PHOENIX, AZ 85082-3572

