

# Tucson Cactus and Succulent Society

Thursday January 8, 2009 at 7 pm

**Note: not the first Thursday of the month**

**"Adenium: Twenty Years from Obscurity to Rising Star"**

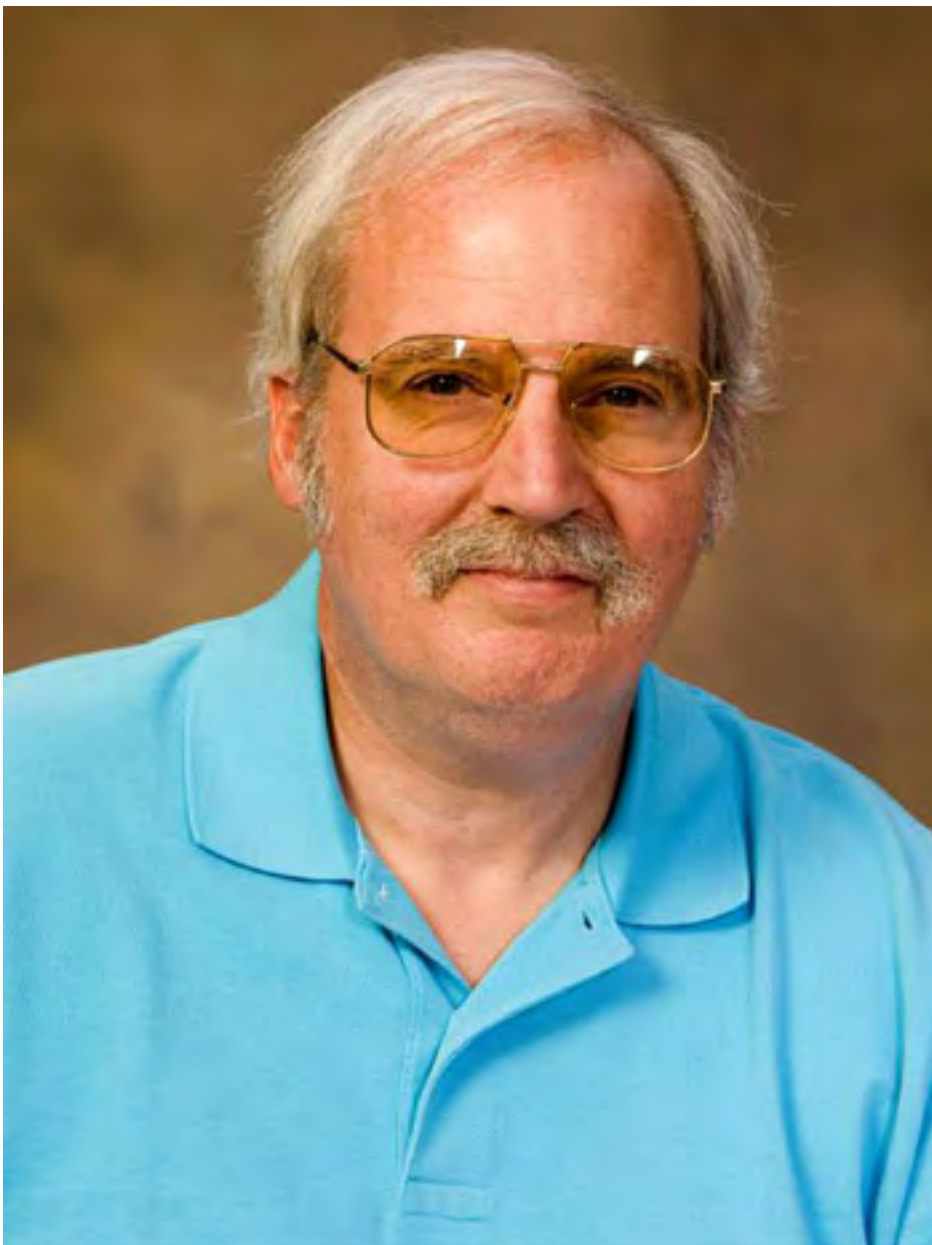
**Presented by Kevin Barber and Mark Dimmitt**

Kevin will begin with a 10-20 minute quick introduction that features a short travelogue that will show Taiwan as a place to grow succulent plants and will display pictures of non adenium succulents as well as do some quick views of adenium nurseries in Taiwan and India.

Mark will be doing the major portion of the program and will present the adenium as the newest ornamental plant to be domesticated, with a history of its development over the last 20 years.

Mark is Director of Natural History at the [Arizona Sonoran Desert Museum](#). He received his Ph.D. in biology at the [University of California Riverside](#). He is well known for his hybrids, especially his study of the adenium and various cacti. In 1999, he received the Friend Award from [The Cactus and Succulent Society of America](#) for his outstanding accomplishments with cacti and succulents.

Please be sure to attend our feature presentation to begin the new year! This will be a great program that you should not miss!



Kevin Barber



Mark Dimmitt

## FREE PLANT GIVEAWAY

Aloe albida x saundersii. A cross between the two dwarf species of A. albida and A. saundersii, both grass Aloes. This hybrid offsets freely and is floriferous with pale cream flowers produced in the fall. This cross was done at Arid Lands in the late eighties. Aloes are succulent plants in the lily family and are native to the old world, specifically Africa, Madagascar and the Arabian peninsula. Many species grow well here in the arid southwest either as potted plants or as specimens in the landscape. They especially thrive under the south side of trees in dappled light that gives them some shade in the summer but more light in the winter when sun angles are lower. Most aloes are cool season growers. They need bright, filtered light with weekly waterings during the cool season and once every two weeks in summer. These aloes are cold tolerant to the high 20's and are easily protected at temperatures below that with a light piece of frost cloth draped over the plant. Flowering takes place normally from mid winter through spring and can range in colors from yellow to orange or bright red.



# Tucson Cactus and Succulent Society

Thursday February 5, 2009 at 7 pm

## "E Namibia Semper Aliquid Novi - New Plants from an Old Place"

Presented by Tim Harvey

Tim started growing cacti (almost exclusively) in England over 30 years ago. In the early 90s he moved across the pond to North America and in 1994 settled in California. Since then his interests had changed, focusing on the "other succulents", especially pachycaul and xerophytic trees. Tim also grows quite a few Aloes and geophytes. He has a Ph. D. in Biochemistry and having escaped the Biotechnology Industry with his morals intact, he now spends his time trying to get his backyard nursery to be more productive.

Against the spectacular backdrop that is Namibia, the program will cover the summer rainfall area (with a few diversions), with emphasis on the 'big' plants e.g. *Cyphostemma* and *Commiphora*. The effects of various factors, natural and otherwise, on the plants from year to year will be illustrated and a number of little-known or undescribed species discussed. Finally, the horticultural potential of Namibian plants will be illustrated.

Please don't miss this great presentation about an incredible area of the world. This is a presentation everyone should see.



### FREE PLANT GIVEAWAY

This month's free plants are *Euphorbia resinifera* and *E. coerulescens*, recommended for pot culture or under filtered light in the ground. Both are hardy to the mid or high 20's without protection, tree cover will provide some additional frost protection. *Euphorbia* is a genus of plants belonging to the family Euphorbiaceae. Consisting of about 2160 species, *Euphorbia* is one of the most diverse genera in the plant kingdom. Members of the family and genus are sometimes referred to as Spurge. The genus is primarily found in the tropical and subtropical regions of Africa and the Americas, but also in temperate zones worldwide. Succulent species originate mostly from Africa, the Americas and Madagascar. *Euphorbia* are annual or perennial herbs, woody shrubs or trees with a caustic, poisonous milky sap (latex) that will cause irritation to the eyes and mucous membranes. The roots are fine or thick and fleshy or tuberous. Many species are more or less succulent, thorny or unarmed. The main stem and mostly also the side arms of the succulent species are thick and fleshy, 15-91 cm (6-36 inches) tall. The deciduous leaves are opposite, alternate or in whorls. In succulent species the leaves are mostly small and short-lived.



# Tucson Cactus and Succulent Society

Thursday March 5, 2009 at 7 PM

## "Cacti, Agaves, and Yuccas of California and Nevada"

Presented by Stephen Ingram

Stephen Ingram's multimedia presentation explores some of the unique attributes of the cacti, agaves, and yuccas as well as highlights what makes them such intriguing components of our native plant communities. With stunning images of their colorful blossoms and unusual growth forms, this program showcases a number of species and varieties that occur in California's deserts and coastal areas. The main slideshow-talk will be approximately 40 minutes, with time for questions. A second 10-minute show set to music illustrates the beauty of these remarkable succulents. Following the presentation, Stephen will sign copies of his new book from Cachuma Press, "Cacti, Agaves, and Yuccas of California and Nevada."

About the Book: California and Nevada are known for their astonishing array of plant life, and few components of this diverse flora are more intriguing than the cacti, agaves, and yuccas. These spiny succulents -- which share many of the same arid habitats -- have long been a source of fascination for explorers, naturalists, and scientists. "Cacti, Agaves, and Yuccas of California and Nevada" features more than 60 species with a detailed text that is accompanied by 262 color photographs, 16 botanical watercolors, and 52 range maps. Much more than a field guide, this book examines the natural history of California's and Nevada's cacti, agaves, and yuccas, including their origins, ecology, and conservation. It also provides practical horticultural advice for their cultivation and describes some of the best places to see these remarkable succulents in the wild.

Botanist, writer, and photographer Stephen Ingram traveled more than 30,000 miles -- much of it on remote backroads -- to search out, study, and photograph the cacti, agaves, and yuccas of California and Nevada. He also delved into the scientific literature, visited numerous herbaria, and interviewed our region's leading experts on Cactaceae and Agavaceae. The result is a detailed, highly readable, and beautifully illustrated natural history and field guide. "Cacti, Agaves, and Yuccas of California and Nevada" is an engaging and substantive reference book that can be enjoyed by novice and expert alike.

Stephen is an excellent professional photographer and his program is exceptional. Be sure to mark your calendar and be at the TCSS meeting for our Thursday evening program in March. For more information and to see some of Stephen's work, please visit <http://www.ingramphoto.com>.



### FREE PLANT GIVEAWAY

Haworthias are a genus of small succulent perennial herbs confined in the wild almost exclusively to the Republic of South Africa. The charm of Haworthias is in their small size, ease of growth, and the almost infinite variation of their delightful leaves. Haworthias rarely require a pot larger than 4 inches in diameter making them ideally suited for a bright windowsill. Perhaps the biggest problem you will encounter when growing Haworthias is that they tend to be addictive! If you acquire more than one plant, you may find yourself wanting more and more, and before you know, you are buying Haworthias with your lunch money. Although some Haworthias are more difficult to cultivate than other, most are very easy. Remember that Haworthias are succulents, so they require abundant bright light, though sudden introduction to direct sunlight will burn and even kill them. They also require a well drained soil that approaches dryness between watering. It is best to fertilize only sparingly, using a water soluble houseplant fertilizer diluted to 1/4 strength, no more often than monthly during active growth, and not at all if the plant is resting. Many Haworthia aficionados, attempting to simulate the natural habitat, grow their plants "hard". These Haworthias are often grown in direct sunlight, with infrequent watering and no fertilizer. Occasionally one of these "hard" plants will show a spectacular array of stress induced colors, but more often they look burned and shriveled.

[www.haworthia.com](http://www.haworthia.com)



# Tucson Cactus and Succulent Society

Thursday April 2, 2009 at 7 pm

"The Golden Fishhook Barrel (Yellow flowered, yellow spined *Ferocactus wislizenii*)"

Presented by Chris Monrad



Chris Monrad has been a TCSS member for nearly 20 years (now a paid life member) and was a co-founder of the Cactus Rescue program in 1999. During the numerous cactus rescues that he assisted with, he began noticing and marveling at the wide variety of spination patterns (black, brown, maroon, short, long, skinny, fat, nearly straight, highly recurved, etc) present in our local barrel cactus, *Ferocactus wislizenii*. (This interest in spination also spilled over into the Ocotillo / *Fouquieria* but that is another story.)

This fascination led to a keen interest in the entire genus *Ferocactus* and also the genus *Echinocactus*. His collection of these plants now includes several plants of nearly every species in each genus and he is now dedicated to the pollination and seed collection for many of these species as well.

During an early cactus rescue project at Saddlebrooke near Catalina, Arizona,

Chris noticed a barrel cactus specimen with bright and pure yellow flowers as well as spines with a strong golden yellow cast. This plant would be the first of only five such specimens that would be collected by him over the next five years of rescue projects, with sites ranging from Saddlebrooke Ranch north of Oracle Junction to a new school site in Corona de Tucson, over 45 miles away from Saddlebrooke. Chris estimates this yellow spined/yellow flowered variety to occur in something like one in every 5,000 or 10,000 barrel cacti, based upon his numerous plant surveys and rescue activities.

Soon after acquiring the first two specimens, Chris wondered about the possibility of performing selective pollination between those two plants to develop a purpose-bred *Ferocactus* cultivar and began to consult with other noted *Ferocacti* propagators in the area. Some of the early results from the first efforts were encouraging and there are approximately 15 six year old yellows spined plants that may bloom this summer.

The summer of 2005 seed crop benefited from the presence of four available seed parents and the first crop of over one thousand seeds was planted in early 2006 with outstanding germination results and the ultimate reward of having numerous never-before-available plants to be given to attendees of the 2009 CSSA Convention at La Paloma and the celebration of the Golden Anniversary of TCSS.

This month's presentation will follow the production of this highly successful and exciting crop of plants from March 2006 thru today, with an eye toward the future landscape applications of the plant and the long term availability of this hardy, robust, and showy native Tucson cultivar.

Please come and enjoy hearing about the recovery of a rare find in our area and how we can make this plant a popular favorite part of our future Arizona landscapes (and beyond).



Chris Monrad



## FREE PLANT GIVEAWAY

This month's free plants are robust three-year-old seedlings (red-spined versions) from the TCSS sponsored propagation of the Golden Fishhook cultivar of our native *Ferocactus wislizenii*. The four yellow-spined and pure yellow-flowered seed parents were found over several years during various cactus rescues ranging from north of Oracle Junction all way to Corona de Tucson. Hand pollination amongst the seed parents during the summer of 2005 resulted in an outstanding crop of fruit and seed that was sown in March 2006. Nearly 75% of the now three-year old seedlings have retained the yellow spination of the parents, but only approximately 25% of the seedlings have more typical red spines. Some of these rare red-spined specimens have been designated as the free plants for attendees of the April 2nd meeting. While the yellow spines of the parents did not carry through to these selected plants, it is possible that the yellow flowers will do so. In the interest of following the outcome of the offspring from this grand experiment, we encourage all members that acquire this plant to join an on-line registry to post the results from the future flowering of these plants.



# Tucson Cactus and Succulent Society

Thursday May 7, 2009 at 7 pm

## "Shows, Showing and Judging"

Presented by Woody Minnich



Photo by Stephen Cooley

This program will feature the up-to-date styles of presenting plants for shows or displays with artistic beauty as well as for competitive excellence. This most modern aspect of showing, sometimes called Staging for Habitat, shows how one can not only grow beautiful plants but present them in a very pleasing and attractive manner. This presentation will also cover the overall dynamics of how to create these stunning presentations as well as where to acquire the best staging materials. Another aspect of this presentation is the considerations that judges use in selecting or critically differentiating one plant from another. The final portion of this talk will show the different types of shows from competitive to noncompetitive as well as the various aspects of show organization and positive group participation. Shows, Showing and Judging was developed for many of the Cactus and Succulent clubs who have decided that a good show is one of the most positive activities that a club can provide. The excellence of horticulture, the perfection of presentation, the sharing of plant knowledge, and the camaraderie of sharing our hobby, the education of others and the introduction of our clubs to potential new members, all of these things are the valuable aspects of a good show.

This program will be a very important view into new ideas for the future as well as demonstrating what can be accomplished with preparing, planting and growing excellent choice plant selections for display. Please be sure to come and see what others are doing and let's look to the future with showing what we can do!

### FREE PLANT GIVEAWAY

Mammillaria and Coryphantha (various species)

Mammillaria and Coryphantha are native to Mexico and the southwestern US, typically characterized by a short squatty appearance with tubercles instead of ribs. They are suitable for pot culture or growing out in the ground as landscape plants or in rock gardens once of adequate size. Mammillaria typically enjoy filtered light in our growing conditions, while some Coryphantha often grow in full sun and have more dense spination. Some species are opportunistic and can bloom multiple times throughout the growing season when water is plentiful. Our local Mammillaria grahamii is well known for its candy-striped blossoms during the monsoon and thousands have been collected by the TCSS Cactus Rescue Program. For more information, refer to [www.mammillarias.net](http://www.mammillarias.net) and see many photos by our very own Norm Dennis!



# Tucson Cactus and Succulent Society

Thursday June 4, 2009 at 7 pm

Presentation by Greg Corman

## "Designing with Cacti and Succulents"



Greg Corman, landscape designer and horticulturist, will discuss ideas for creating beautiful, easy care, and ecologically sound gardens using cacti, succulents, and complementary trees and shrubs. He'll include tips for unifying a chaotic collection of plants, using monsoon plants for seasonal interest, and creating restful, sculptural gardens using only monocots.

Greg Corman is a landscape designer and horticulturist and owner of [Gardening Insights, Inc.](#) His landscapes are recognized for their artistry, ecological sensitivity, and unique combinations of native plants. Greg's experience includes thirty years of horticultural and design work, mostly in desert areas of Australia, the Middle East, and the Southwestern US. He is always looking for new species for landscaping and new ways to use native plants.

He is also recognized as a regional expert on native plants and teaches docents, master gardeners and the public on many horticultural and design topics. Greg is also a co-leader on bird and plant tours to Bolivia for [WINGS](#), a local bird tour company.

To promote environmental education and research, Greg sits on the board of the [Drylands Institute](#) and is an advisory committee member for the [Watershed Management Group](#) and the [University of Arizona Arboretum](#). Greg has BS and MS degrees in Agriculture from the [University of Arizona](#) and the University of Maryland, respectively.

Please mark your calendar and be sure to attend this very informative meeting where you will learn some great things about landscape design, selection of plants for your "succulent landscape" and much more. Be sure to join us and also, bring a friend!



### FREE PLANT GIVEAWAY

Thelocactus

The arid lands of the central Mexico plateau are home to many cacti, among which there are the Thelocactus species. These are small to medium sized plants of a globose to slightly upright form with a beautiful spination and large, showy flowers. They are very popular among collectors, mainly for their recurrent flowering throughout the spring and summer months with regular watering and low maintenance / frost hardy / full sun cultivation. The genus is small, made up of about 15-20 entities, the exact number of species varying according to the authority.



# Tucson Cactus and Succulent Society

Thursday July 2, 2009 at 7 pm

Presentation by Dr. Mary Olsen, Ph.D.

## "Diseases of Cacti and Succulents"

Despite their special adaptations such as thick waxy cuticles, modified leaves (spines), dehydration induced dormancy and other tactics, cacti and succulents suffer from diseases, insect pests and cultural problems just as all other plants. There is relatively little known about the diseases of these plants, but fungi, bacteria, viruses and parasitic nematodes can cause problems in cacti and succulents. Many of these problems are avoidable, but others are problematic in cacti and succulents even in their native habitats. Recognizing these problems is the first step toward knowing how to control or avoid them. Mary will discuss the problems with which she is familiar, and engage audience participation in expressing problems they may have encountered.

Dr. Mary W. Olsen, is an Extension Specialist in Plant Pathology with the Department of Plant Sciences at the University of Arizona. She received her Ph.D. in Plant Pathology at the University of Arizona in 1982 and a B.S. in Botany, University of Arizona in 1976.



Mary has been the Extension Specialist in Plant Pathology at the UA since 1997 and works at the the University of Arizona main campus in Tucson. She will diagnose plant diseases for clientele in Arizona including growers, landscapers and homeowners. She also provides information on the identification, prevention and control of diseases of plants in commercial agriculture, landscapes and native sites. Mary currently conducts research on the etiology, ecology and control of important diseases of cotton, grains, vegetables and turf. Information on many diseases of plants in Arizona is provided on her web site (<http://www.ag.arizona.edu/PLP/plpext/>), as is information for submitting plant samples for diagnosis.

If you would like to learn more about disease and pest problems, please be sure to attend this meeting!

## FREE PLANT GIVEAWAY

### *Ceropegia stapeliiformis* ssp. *serpentina*

From the Republic of South Africa and Swaziland, this is one very "snaky" species of *Ceropegia*. The stems creep and twine, possessing peduncles that grab onto convenient surfaces to hold the plant up. The flowers are dark brown and white.

### *Orbea variegata*

From the Western Cape Province of the Republic of South Africa, this widely distributed species is one of the most popular stapeliads. The stems are rather generic and unremarkable, but the flower is large, multicolored, and stinks to high heaven. In Tucson, these plants get leggy; it is best if the stems are short and densely packed.

### *Huernia keniensis* var. *keniensis*

This small asclepiad grows among basalt rocks and on other rocky ridges in the Great Rift Valley of Kenya and Tanzania. The fragile stems resemble innumerable *Huernia*, but the flowers are bell-shaped and dark purple and about an inch across.



# Tucson Cactus and Succulent Society

Thursday August 6, 2009 at 7 pm

Presentation by Dr. Michael W. Douglas, Ph.D.  
Research Meteorologist, National Severe Storms Laboratory, Norman, Oklahoma

## "Understanding the Climates of Succulent Plant Habitats"

This will be a very interesting program that will include lots of photos of succulent habitat locations as Michael will present his ideas about the relationship of weather on the environmental conditions on succulent plants.

Dr. Douglas became interested in cacti from a friend while in high school in San Diego, and thereafter traveled widely through the desert southwest and Baja California before going off to graduate school in Florida. After a nearly endless period of graduate studies at two universities in Florida, he obtained his Ph.D. in Meteorology from Florida State University in 1987. His last 16 years have been spent in Norman, Oklahoma at the National Severe Storms Laboratory, where, contrary to normal expectations, he has not been chasing tornadoes but instead has been doing research on the climate and weather of the southwestern US and Mexico and also of regions farther afield, in South America and parts of Africa. Fieldwork for this research required extensive traveling and extended stays throughout Latin America and parts of Africa, most with his wife Rosario. This work travel, together with many personal trips made over the years, has afforded lots of exposure to succulent habitats. This has led to some of his current "unofficial" research, which involves seeking meteorological explanations for many of the succulent plant habitats around the globe.



This will be a must see program for everyone! I would highly recommend that you please try to attend this important look at the earth's meteorological patterns and the habitats that are always under the natural control from the climate.



## Free Plant Giveaway Agave

There are several hundreds species of Agave. They are native to the Southwestern US, throughout Mexico and into Central America. They were (and continue to be) cultivated for centuries by the native populations for fibers, food and drinks. They are also very useful plants in desert gardens and many of the species that are native to areas northerly of the tropics are quite hardy. Agaves are succulent rosettes, often clumping, occasionally on short trunks. They generally have a sharp spine at the end of their leaves, and for this reason should be away from paths. Each rosette blooms after many years (generally at least 8). The blooming rosette uses all its energy to produce the giant towering bloom, and seeds. When it has finished blooming, in almost all the species, the rosette dries out. Some species produce a large quantity of new plants on the flower stem (bulbils). These can be detached and planted.



# Tucson Cactus and Succulent Society

Thursday September 3, 2009 at 7 pm

"South Africa - Northern Cape Part One"

Presented By Doug Dawson



Doug is a retired mathematics professor at Glendale Community College and now just teaches summer school each year to earn money for my trips. Right now, seed-growing seems to be his greatest botanical passion. It yields much needed biodiversity. So often, especially in the succulent area, propagation by cuttings and even seed seems to limit breadth of biodiversity. Much of what we grow or can even get seed from, comes from sources which have the same small gene pool for decades from a few select plants. It is good to introduce wild-collected seed with data from time to time to prevent a narrowing of genetic material. New sports or cultivars also effervesce when lots of seedlings are observed. With his lithops, it is like being able to go "rock" collecting for prettier, shinier "living" stones without even leaving his greenhouse.



Doug is a past president of the Central Arizona Cactus and Succulent Society up in Phoenix and also a member of the TCSS. He has done extensive botanical travels in Namibia and South Africa. Doug's program will include Mesembs, Euphorbias, Stapeliads and other succulents, wild flowers and many bulbs. Most of the photos from my talk were taken in August, 2008 (early Spring), with a few from a second trip in April and May of 2009 to show the same plants in blooming season or other conditions.

Doug will visit South Africa in September 09 to visit the Little Karoo and further explore the Northern Cape. At that time, Woody Minnich and Jan Emming will accompany him. Every time he returns at a different time of year, the plants show further characteristics of their growth cycles and give clues on how they should be grown in the very harsh Phoenix climate.

Please be sure to mark your calendar for this September 3rd presentation. It will be an excellent program that you will want to attend!



## Free Plant Giveaway

### Melocactus

Melocactus the genus...A unique group of cacti which are native to the Caribbean, Central and South America. These plants over time will produce a characteristic cephalium, a terminal growth where flowers are born. They are usually small hot pink in color and open late in the day, closing up the next morning. A few weeks later bright red or pink fruits emerge when the seeds are ripe. Over many years, the cephalium will continue to grow and elongate, adding lots of reddish soft spines. Old specimens are quite the conversation piece. In Tucson...Melocactus are not landscape plants, but great potted patio plants. They are best grown in morning sun or dappled light, do not attempt to grow them in full sun, they will burn. If they are kept dry during the winter when freezing temperature are possible, they will overwinter fine. On the coldest prolonged freezing nights a box inverted over your specimen will offer extra cold protection. In April resume watering and feed them monthly thru September using a balanced water soluble fertilizer at half strength. When seen in the wild, Melocactus or Turk's Caps look like aliens from another planet. Many of the seasonally dry islands of the Caribbean each have a species of Melocactus. These plants are good sized with many starting to produce their cephalium. Enjoy your plants.



# Tucson Cactus and Succulent Society

Thursday October 1, 2009 at 7 pm

"50 years in 50 minutes"

Presented by Richard Wiedhopf, President of TCSS



From the first meeting in December 1960 to the Good Time Silent Auction a week or so ago the Tucson Cactus and Succulent Society has been going strong for 50 years. Pictures and stories about the members and events of the society will be highlighted. Dick is the Assistant Dean for Finance and Facilities and Curator of the History of Pharmacy Museum at the College of Pharmacy at The University of Arizona. He has been associated with the College for 48 years receiving BS and MS degrees and has published research on the chemistry of plants with potential anti-cancer agents.

For the last 30+ years his focus has been on finance and facilities. Dick and his wife Pat are long time members of the Tucson Cactus and Succulent Society, joining in 1970. Dick currently serves as president. He has co-chaired all the Sonoran conferences and is one of the founders of the Tucson Society's Plant Rescue program, which has saved over 46,000 cacti & succulents from destruction due to large-scale land development. Dick has been a member of the CSSA since 1975 and coordinated the 1977 convention in Tucson, was host President for the 1995 Tucson Convention and Program Chairman for the 2001 Los Angeles Convention. He is a grower and collector of all things cacti and succulent. Please join us for a look at 50 memorable years.

## **SPECIAL 50TH ANNIVERSARY FREE PLANT CARNEGIEA GIGANTEA-GIANT SAGUARO**

Want to get involved with a special event... that will only happen once in 50 years? Receive a one gallon seed grown Giant Saguaro. Plant it, nurture it, watch it grow and measure it's growth once every October and send your results annually in order to follow the growth from year to year. A special page will be set up to track and follow the growth of your seedling Saguaro. We can track how many Saguaros were initially planted, and see how they age each year, what will five and ten years produce in height? Who know's...when will the first one branch and throw an arm and how long will the first plants take to produce the first flowers? Stay Tuned for more details. Okay..so you have the Saguaro, you have the fertilizer, measure and record the date of planting, log details at the TCSS Website, dig the hole...plant the Saguaro, water and fertilize and off we go.

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# Tucson Cactus and Succulent Society

Thursday November 5, 2009 at 7 pm

## "The Use of Emulsified Pure Oils to Control Insects and Diseases Attacking Cacti and Succulents"

Subtitle: "Grandfather's Intestinal Lubricant Provides Excellent Control of Mites, Insects and Diseases"

Presented by Dr. Jerald Wheeler

Pure oils can be obtained from the local drugstore. "Mineral Oil" is a great intestinal lubricant, Odorless - Tasteless - Crystal Clear, 1-2 tablespoons at bedtime. My grandfather used it but I did not understand the actual significant use of oils until I started working and understanding their use in agricultural application. The use of pure oils for pest and disease control for cactus and succulents is safe, effective and really quite unknown to most people.

Jerald E. Wheeler, Ph.D. is a Plant Pathologist. For those who need a better explanation of what a plant pathologist does, here is a short definition. A plant pathologist is one who studies, interprets, and diagnoses diseases and abnormalities of plants. Plant Pathology is defined as the study of the organisms and environmental conditions that cause disease in plants, the mechanisms by which this occurs, the interactions between these causal agents and the plant (effects on plant growth, yield and quality), and the methods of managing or controlling plant disease. It also interfaces knowledge from other scientific fields such as mycology, microbiology, virology, biochemistry, bio-informatics, etc. Educational background: BS. Purdue University, 1966, Agriculture and Plant Sciences MS. U. of Arizona, 1969, Plant Pathology/Botany Ph.D. U. of Arizona, 1970, Plant Pathology/Agricultural Biochemistry 1968-1970 U. of Arizona. In charge of plant disease clinic under Dr. Hine. Professional History: 1970-1971 Assistant Professor of Plant Physiology, Univ. of Freiburg, Germany; 1971-1973 Assistant Professor of Agronomy and Plant Genetics at the University of Arizona; 1973-1975 Development Plant Pathologist, University of Wisconsin; Brazil 1975-1988 Owned and/or Managed Acre, Inc.; 1988-2002 Product Development Manager, United Agri Products; 2002-2004 Product Development Manager, Western Farm Service; 2003-present Product Development Manager, Agriliance/Winfield Solutions. Dr. Wheeler has also been published with his writings in 17 Scientific Publications in referred journals.



Please plan to come to this last regular meeting for 2009. Dr. Wheeler is a fantastic speaker who will add a lot of information that will be of value to you and your garden. It has been a very busy year for everyone in our organization. We have achieved many goals and are now looking to another amazing year in 2010.

Thanks to you all!

### Free Plant Giveaway

#### Lithops Care (Pot Culture)

LITHOPS should be given a dry rest in winter when the new growth is drawing moisture from the old leaves. At this time, water very lightly, just enough to keep the root hairs alive. As the old leaves dry up in the spring, give them more water until the long, hot summer days bring the growing period to a standstill. During summer only regular light watering is required to prevent the plants from shriveling and the soil from going bone dry. As flower buds appear in late summer and fall, another watering period begins, tapering off during winter after flowering has ended. (Those growing plants under lights will probably need to water some during the winter when the plants show signs of shriveling). Lithops should be grown in filtered sunlight. We pot our lithops in our standard succulent medium. It's approximately 50% pumice (perlite works just as well for the plant, though it tends to float). Two crucial factors in lithops cultivation are fast-draining soil and good air movement.