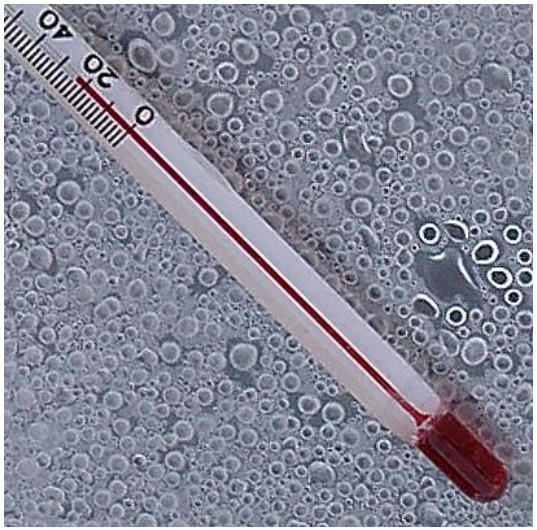
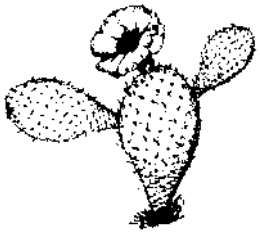
The Bakersfield Cactus & Succulent Society
% Stephen Cooley, editor
thecactuspatch@bak.rr.com



Brrrrrrr!
Photo by Linda Cooley

The Cactus Patch



Opuntia basilaris var. treleasei

Volume 10 **February 2007** Number 2

THE NEWSLETTER OF THE BAKERSFIELD CACTUS & SUCCULENT SOCIETY

This Month's Program

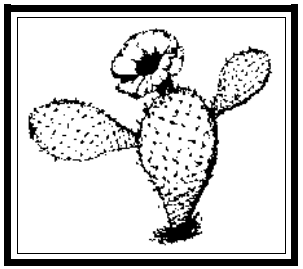
BASIC TRAINING

Presented by **Stephen Cooley**

Monthly Meeting

Tuesday, Feb 13
Olive Drive Church,
5500 Olive drive
at **6:30 PM**
(West of 99 freeway
on corner of Olive drive &
Victor street)

Have you paid your dues for 2007?



The Cactus Patch

Volume 10 Number 2
February 2007

The Cactus Patch is the official publication of the Bakersfield Cactus & Succulent Society (BCSS) of Bakersfield, California. Meetings are held on the second Tuesday of each month at the times and places noted within. GUEST ARE ALWAYS WELCOME

2007 Officers

President – Ed Colley
Vice-President – Jerry Garrison
Treasurer - Maynard Moe
Secretary – Anne Lee
Editors - Stephen Cooley
Linda Cooley

2007 Directors

CSSA Representative – Maynard Moe
Past President – Vonne Zdenek

2007 Chairpersons

Hospitality - Bill McDonald
Librarian – Rose Mary Maguire
Field Trips – Lynn McDonald
Historian – Stephen Cooley
Show & Sale – Maynard Moe

President Ed Colley began the meeting by asking for members to come forward and fill in the remaining Chairperson's jobs that went unfilled last meeting. The positions were filled by Maynard Moe and Stephen Cooley. Rose Marie, our new librarian, says she would like to inventory the books in the library and asks that the members check to see if they have any books out that they have forgotten to return.

Sydney would like to set a date for the yard sale, which has usually been held in late May. Since it is held at her house, she would like to know as soon as possible. Also, There is a fountain available (you might remember talk of it last year) that she may need help moving for the yard sale.

Member Rob Skillen then gave a wonderful presentation on the *Copiapoa* and *Eriosyce* of Chile. As usual, we were treated to wonderful pictures and good information. The large clumps of aged *Copiapoa* had to be seen to be believed. We ended the meeting with another great raffle.

FEBRUARY'S PROGRAM

BASIC TRAINING

Presented by Stephen Cooley

This month's presentation will focus on the basics of Succulent care and maintenance. I will try to cover everything from plant selection, pots, soil, and exposure, to watering and fertilizing. This is not another talk about staging and making your plants pretty, this is more of a "How do I grow a beautiful plant?' talk. The more experienced members should feel free to add to this discussion so that we may all benefit.

Plant of the Month

In keeping with the presentation, the plant of the month will be any plant that you have grown and are proud of. Share with us how you did it!

A Phyrric Victory

A Letter From Bruce

On the 13th of Dec. the High Court in Botswana finally announced its decision on the longest lasting case in its history. This was the suit by a group of San (Bushmen) who had been evicted from the Central Kgalagadi Game Reserve. The ruling was unanimous that they where in legal possession of the land. The ruling (with one dissent) was also made that the eviction was unconstitutional. Thus, many people have hailed this as a victory for the San. A major setback was the ruling (with Unity Dow dissenting) that the stoppage of Government services was legal.

The reportage was informative. All local papers had extensive coverage, the most interesting being The Echo which quoted a cousin of Roy Sesana (who led the suit) as saying he had no desire to leave his business and return to the CKGR. Internationally, there was no report in Time or Newsweek, a mention in the Washington Post and a scandalous broadcast on the BBC. The BBC showed Unity Dow giving her minority opinion only and repeated the claims of Survival International, a British

based group that has long claimed the removal was to make way for diamond mining, a claim which has never been proven. (SI even drug DiCaprio and the film "Blood Diamonds" into their propaganda, although the film has nothing whatever to do with Botswana.) They demanded immediate action by government.

The Botswana government did move swiftly, but not in the way some had hoped. The ruling was made that the San could move back into the CKGR - but only the small group of 189 who had brought the suit! Furthermore, the government was not going to supply services (such as water), no permanent structures could be built and no livestock could be brought in. This means that 50 years of change would have to be erased. (Despite the misguided idealism of many such as Desmond Tutu, the San had long since ceased their traditional life and few would want to return to it. I visited the CKGR shortly before the removals and found permanent settlements with water supplied by trucks, livestock, crops and hunting by rifle.)

The rest of December was dull as usual. Most people go on holiday and very little gets done. There was a party at the museum on the 15th which was a farewell to the director who has been transferred to Library Services. Our choir went caroling at the hospital on the 18th and at the biggest mall on the 22nd. We spent Christmas day with The Elstons (Polly's friend Maggie) including a dip in their pool (although chased out by lightning and bees). Next day we went out to the Cooks' and had a second Christmas dinner. We also put together a mystery puzzle called "Poirot's Christmas". It was an easy puzzle and the mystery was solved.

Nananthus magaretiferous

New Years was delightfully dull and things are just now returning to normal. The hot days are broken now and then by a bit of rain.

The Millennium Seed Bank went on a collecting trip at the beginning of December (without me) and came back with *Nananthus magaretiferous,* a mesemb which is named for the pearly spots on its leaves. This has long been an unsettled question. Although claimed for Botswana (it appears in our red data list over my protest), it was proven only for the Namibian side of the border**.**

Among many interesting books I received at Christmas is "Karoo Veld" edited by Karen J. Esler, Sue J. Milton and W. Richard J. Dean , [2006, Briza, Pretoria, P184 ($37)]. We had met Dean in Prince Albert and learned he was supervisor for the Master's Degree of my local counterpart, Nonofo Mosesane. This is interesting since Dean is an ornothologist, Nonofo was working on Marula trees (*Sclerocarya* - used for the liqueur Amarula Cream) and the book is basically a range management text.

This last point is, of course, why it is not as interesting as it could be. Most of us do not have ranches in the Karoo and are interested mainly because of the succulents which abound there. This may relate to another objection which I have which is that there is too much Afrikaans. For example, a picture caption reads, "Palatable bossies and opslag flowering abundantly in a road verge". Those of us who speak English need to know that bossies are little bushes (shrublets) and opslag refers to annuals and tuberous plants.

The book lists a translator, but almost all the plant names are given in Afrikaans. There is an index in the back which gives scientific names, but it is a nuisance to have to constantly flip back and forth. (To be fair, most people don't like to use scientific names and Karoo plants have few English ones.)

I also disagree with the definition of the boundary between Karoo and Kgalagadi. Maps in the book show it well south of Botswana. I believe the south west of Botswana is predominantly Karoid. I shall give a talk on this when we get back to Bakersfield.

Newsflash!

I just read the article on Hoodia from the Jan. Cactus Patch. One of the best summaries. Just two errors.

The Kgalagadi (aka Kalahari) is not a desert despite all the nonsense put out by people who should know better (e.g. National Geographic). The Karoo is, and that's where *Hoodia gordonii* is found. Secondly, the San are not a tribe! That is rather like referring to Europeans as one tribe. I think Russians and French would agree they are

different. Likewise, the Qkung, Nharo and Ckhomani do not share the same culture or language. Anyone interested should come to the Kuru San Dance festival held in Western Botswana every August. It is quite a cultural exchange!

Hoodia gordonii at Veld Products Research and Development.

Anyone spending a fortune on "Hoodia" products should be warned that not all of them contain Hoodia, and even those which do often have ineffective dosages. As for safety - who knows. I'm still not convinced it isn't just another addictive stimulant. (I've already been bawled out by a representative from the South African CSIR which patented P57 for saying this, but we still don't know anything about their P57.) At any rate its outside my expertise. I have passed Hoodia on to lawmakers (we now have local and international laws protecting it) as well as horticulturalists (a local group, Veld Products Research and Development, is growing Hoodia in conjunction with Unilever). There are reports that wild plants are endangered despite the law and crop production may be too late with both South Africa and Namibia showing a wide lead, but I'll continue to watch what happens.

Second newsflash!!

I was struck by the brilliant red color of Jack Kelly's *Jatropha berlandieri* on the back page of the Cactus Patch. It wasn't until I went back for a second look that I realized there were seven petals! I then looked up this species in Dehgan & Webster's monograph on the genus (Univ. Calif. Botany Vol. 74, 1979). It is actually *Jatropha cathartica* (the other name is a synonym) and normally has five petals like most Jatrophas. It was first described from Tamaulipas, Mexico and extends up into Texas.

Bruce J. Hargreaves

Cold Enough To Freeze Your Bud Off

by Linda Cooley

Well, the "Big Freeze" has come and gone. How did your plants fare? In this article we will explore ways to keep your plants safe from the cold. First of all, it might be instructive to compare our recent freezing weather to normal temperatures experienced in Bakersfield and to explore how often these temperatures can be expected. The 1998 and 1990 Big Freezes were more severe than our recent cold weather. During the 1998 freeze event, temperatures dropped to 19˚F and the maximum temperatures were not as high as our recent freeze. In 1998. we were as much as 17˚F below normal during the 11 day period when minimums were below freezing. We had 3 days when the average temp was below freezing. In January 2007, the average temps were higher, with higher minimums and maximums, although we still had 10 mornings in a row with below freezing temperatures. The coldest two days (the 12th and 13th) were 12 degrees below normal. For comparison, the average low temperatures in late December through mid-January are in the upper 30s. The record low for both months is 19˚F.

Here at my place in east Bakersfield (not up in the higher areas, I live nearer to Hwy. 58....) on Saturday January 13, I recorded a low temperature of 23 degrees at 7 am. On Sunday, it was 22 degrees. Most information I have read or heard indicates that a lot of cold-sensitive plants start getting damaged at 28˚F, so 22˚F is dangerously cold!

I grow mostly aloes, about half of them in the ground and the rest in pots. Some always spend the winter inside, near a sunny window. Others have done just fine in their pots outside in a semi-protected area, for example, under a tree or near the house. The aloes I grow in the ground are mostly from areas of South Africa that have similar temperatures to Bakersfield. They never shown any damage from a normal winter, and some of them survived the two previous Big Freezes of 1990 and 1998. But--they sure didn't look good afterward! This time I wanted to protect them so that

they would still look great! I erected a "greenhouse" of 6-mil clear plastic over the entire planting bed, supporting it on bamboo poles that were about 2 ft high. The plastic went all the way to the ground on 3 sides and was tacked to a railway tie that borders the fourth side. On January 13th the temperature on top of the plastic was 24˚F and the water droplets that had condensed on the inside of the plastic were frozen. I stuck the thermometer inside the greenhouse, halfway between the ground and the plastic and the temperature was 28˚F, so that gave me 4 extra degrees of protection, which is enough to prevent most damage. On the ground inside the greenhouse it was 30˚F. The water drops were not frozen inside the plastic near the ground.

I brought the potted plants onto the porch near the house. The temperature there dropped to 26 or so. Some of those plants were damaged; a couple of them were killed (kalanchoes, mostly). I had some damage to the leaves of a couple of potted aloes, and some flowering stalks were killed back. I also put some potted plants on a storage shed under my driveway awning, right next to the house, and the temperature there dropped to around 30. Most of those plants were fine, except the *Epiphyllum* I forgot to bring in! I'm not sure if it is going to make it or not.

Out in front I have some *Aloe vera* and another aloe (maybe *A. saponaria*?) I covered some of them with a sheet at the last minute (I didn't have anymore plastic!) and was surprised to see how much that kept them from being damaged. The uncovered plants show leaf tip damage for almost half their length.

The biggest damage to plants under the plastic greenhouse occurred where the leaves touched the plastic, so it is important to raise the plastic up above the leaves and then seal it against the ground, to prevent air movement in and out of the greenhouse. Clear plastic works well because it lets the sun in, which warms the ground. Then the ground re-radiates the heat out at night. From what I have read, this can be a significant amount of heat!

Information from the weather service:

BAKERSFIELD RECORDS TIED OR BROKEN IN JANUARY

Jan. 14	Record low for the date 23˚F	the old record was 25˚F (1963)
Jan. 15	Record low for the date 24˚F	the old record was 26˚F (1972)
Jan. 16	Tied the record low of 26˚F	(1947).

The 1998 Big Freeze was more severe than our recent cold weather. During that freeze event, temperatures dropped to 19˚F and the maximum temperatures were not as high. We were as much as 17˚F below normal during the 11 day period when minimums were below freezing. We had 3 days when the average temp was below freezing. In January 2007, the average temps were higher, with higher minimums and maximums, although we still had 10 mornings in a row with below freezing temperatures. The coldest two days (the 12th and 13th) were 12 degrees below normal. For comparison, the average low temperatures in late December through mid-January are in the upper 30s. The record low for both months is 19˚F.

Frost Protection and Extending the Growing Season

by D. Whiting, C. Wilson, and C. O'Meara
Colorado State University Cooperative Extension
(http://www.ext.colostate.edu/pubs/garden/07851.pdf)

Coverings:

Blankets and Sheets

Grandma's old method of covering the garden with blankets and sheets works well as long as the fabric remains dry. If the fabric absorbs

water, evaporative cooling can lead to colder temperatures adjacent to the blanket. To recharge the heat stored in the soil, remove the fabric in the daytime.

Floating Row Covers

Floating row covers are lightweight fabrics that lay directly over crops. Since they transmit light, they provide crop protection over an extended period of time without being removed. They provide 2 to 4 degrees F of frost protection, cut wind on tender plants, and screen out some insects. On insect pollinated crops, remove covers must be removed for pollination to occur. Floating row covers are popular in commercial vegetable production where crops planted in large blocks are easily covered with row covers. Many brands and fabric types are commercially available.

Plastic Covering on Frame

When plastic is used as a covering over a growing bed, it must be held up off the plants. Plants will freeze where the plastic touches them. Tunnel Gardening – Gardening catalogs carry wire hoops for use in "tunnel" or cloche gardening. Hoops are placed at 3- to 5-foot intervals, depending on the wind exposure of the site. The wire hoops hold up a strip of plastic forming a tunnel-shape covering down the growing bed. Bury the edges of the plastic a few inches into the soil on all sides. On a raised-bed box made with lumber, staple the plastic to the sides of the box. Two-inch holes cut in the sides of the plastic tunnel at 2 to 3-foot intervals prevent over heating. This type of covering is popular with commercial tomato, pepper, and melon growers for an early start to the growing season. It provides 2 to 4 degrees F of frost protection, warmer growing temperatures inside the tunnel, and protects tender plants from cold spring wind. Tunnels are removed when warm weather arrives and the danger of frost is past.

Plastic Covered Cold Frame Made with Concrete Reinforcing Mesh

An easy cold-frame structure for a growing bed is made with 4-mil clear plastic (polyethylene film) draped over concrete reinforcing mesh. The structure is easily opened during warm days and closed for cold nights. It works well with a 4-foot wide, raised-bed garden system. The frame is concrete reinforcing mesh, available at hardware and lumber stores. This stiff wire mesh typically comes 5 feet wide in 50 and 100-foot rolls. A 6-foot length is required to make a Quonset-type frame over a 4-foot wide growing bed. In trials, the low and spreading shape was ideal for trapping heat from the soil during a frosty night. Cover the frame with clear, 4-mil polyethylene plastic. It typically is sold in 10

foot by 25 foot rolls. For a 4-foot wide raised bed box, place a 3½-foot wide section on each side, overlapping at the top. On a raised-bed box, staple the plastic to the sides of the wood box. In soil bed applications, bury the plastic a few inches along the sides.

During the day, the covering MUST be opened, at least a slit, to prevent overheating. With just an hour of sun, temperatures under a closed cover can quickly rise to over 130F! Cover must be opened at least a slit to prevent overheating. On cool days, open the top a crack to prevent excessive heat build-up. On a warm day, the plastic can slide down the side, ventilating and providing crops exposure to the outdoors. On freezing nights, close the cover completely. On warm nights, leave the covers open a crack. On stormy days with full cloud cover and no direct sun, the cover may remain closed. Not only will the covers provide frost protection, they also increase growing temperatures for early crop growth and provide protection from cold winds.

In trials in Fort Collins, Colorado, a plastic cover on a frame typically provides 3 degrees F to over 6 degrees F of frost protection. It works well for cool-season crops that are somewhat tolerant of frosty nights, and adds two to six weeks or more on both ends of the growing season. For warm-season tomato and summer squash crops that are intolerant of a frosty nip, adding a small light inside the cold frame provides even better frost protection.

Adding Space Blankets

On extra cold nights, placing an aluminum space blanket over the plastic on the frame significantly adds to the frost protection. With the aluminized side placed down (towards the plants), a space blanket reflects 99 percent of the heat. They are readily available where camping gear is sold. In trials in Fort Collins, topping a plastic-covered, concrete mesh cold frame with a space blanket prevented freezing when outside temperatures dipped to 0 degrees F following a sunny spring day. Remove the space blanket each day to recharge the soil's stored heat.

Lights for Additional Heat

Christmas tree lights – For additional protection, add Christmas tree lights inside the cold frame. In Fort Collins trials, one 25-light string of C-7 (mid-size) Christmas lights per frame unit (4 feet wide by 5 feet long) gave 6 degrees F to over 18 degrees F frost protection. Lights were hung on the frame under the plastic and turned on at dusk and off at dawn. Christmas lights work better than a single, large light bulb in the center by eliminating cold corners and edges.

Space Blanket with Christmas Tree Lights

For the gardener really wanting to extend the growing season, try Christmas lights plus a space blanket. One 25-light string of C-7 (mid-size) Christmas lights per frame unit (4 feet wide by 5 feet long) with a space blanket on top gave 18 degrees to over 30 degrees frost protection in Fort Collins trials.

Wall-of-Water

The wall-of-water is a cone-shaped ring of connected plastic tubes filled with water that surrounds a single plant, like a tomato, pepper or summer squash. This device works on the chemistry principle of heat release in a phase change; there is a significant amount of heat released as water freezes (changes from the liquid phase to the solid or ice phase). A wall-of-water provides frost protection typically down to mid-teen F temperatures. It also provides wind protection for tender plants and growing temperatures may be slightly warmer inside a wall-of-water. They are helpful to get a few extra weeks head start on vine ripe tomatoes. However, an extra early tomato may out-grow the protection and the tops may be nipped back by frost. Both cold air temperatures and cold soil temperatures are limiting factors in early crop production. When using a wall-of-water to start early crops, warm the soil with black plastic mulch.

Bakersfield Cactus

The Green Thumb Club's February 17th meeting will feature guest speaker Ellen Cypher, botanist for CA Dept. of Fish & Game, who will talk about "Posies, Parasites & Prickles: Recovery of Endangered Plants in the San Joaquin Valley." This may be of interest as it should include the Bakersfield Cactus.

Lynn

Cactus Available

Julia Lynfesty has a daughter with a large succulent garden that she no longer wants. There are large and small plants. She would like to know if anyone is interested in having some as she can't bear to see them destroyed. Contact Julia

THE SUCCULENT GARDEN AT CAL STATE

January 2007

This January's freeze was hard on some of the newer and frost-tender plants in the garden. Though some were covered with plastic, injury and death still took its toll. The Elephant Tree (*Bursera*) and the Boojum (*Idria*) seem to be gone, as would be expected. Some of the aloes and mesembs have injury, but many of the cacti look fine.

FIELD TRIPS

WIND WOLVES PRESERVE

Work party dates: Mar 10, Apr 14, May 12, June 9.

SAN LUIS OBISPO BOTANICAL GARDEN
Sunday, February 18

We will be given a tour by the succulent person, Gracia Bello, from 10-11:00 am Sunday, February 18.

We will plan to meet at the SW Home Depot on Gosford @ 0700 that morning, in order to leave by 0710, and will travel via Hwy. 166. Or meet at the SLOBG @0945.

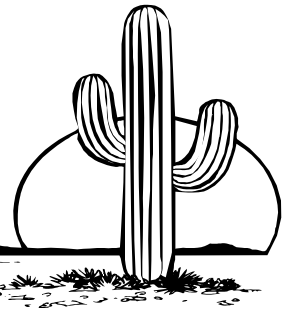
The San Luis Obispo Botanical Garden is located on Highway 1 in El Chorro Regional Park between San Luis Obispo and Morro Bay. The Preview Garden is open during daylight hours.

Please RSVP to Lynn in order to give the guide an approximate number. We hope to be joined by members of the Central Coast C&SS.

Nick Wilkinson, who sold plants at our last Show & Sale, would like to know if he should expect a group to tour his place that day, let's decide at the next meeting.

Lynn McDonald

UPCOMING EVENTS



Bakersfield Cactus and Succulent Society Events

Feb 13 BCSS Meeting 6:30pm Olive Drive Church
Speaker: Stephen Cooley
Program: Basic Training
Mar 4 Garden Workday at Cal State
Mar 13 BCSS Meeting 6:30pm Olive Drive Church
Speaker: Mark Muradian
Program: Northern Argentina

Other Cactus and Succulent Events

May 25-30 CSSA 32nd Annual Convention. Seattle Airport Doubletree.

Membership in the Bakersfield Cactus & Succulent Society costs $10 per year for an individual and only $15 a year for a family. This extraordinarily reasonable price not only includes twelve issues of The Cactus Patch but entitles you to participate in club field trips to far-off (out-of-town) and exotic places (more exotic than Bakersfield). You will also receive a nifty name tag that will be your ticket to a members only plant raffle. All this is in addition to the wonderful programs and people at the meetings. To become a member contact:

Maynard Moe, treasurer
Lithops44@bak.rr.com

contact the editors for more information

Stephen Cooley **Linda Cooley**
thecactuspatch@bak.rr.com