

Happy, Healthy Houseplants— Cacti as Houseplants

Cacti are among the most fascinating houseplants and they are also the most undemanding. Though they do not need much attention, it is important to give the correct care and conditions and of course to understand why these are necessary. The most important factor in caring for cacti is light. Ideally the all around light of a greenhouse is what they need, but an sunny windowsill will do for most cacti.

In nature cacti receive water at certain times of the year only and often flashfloods wash over them submerging them for hours and then drain away quickly. The plants are able to take up moisture quickly and store it for long periods of drought. Try to imitate natural conditions as much as possible From spring until early fall, water as for most plants. Start slowly in spring after a dry winter spell, leaving long gaps between watering. Let the soil dry out almost completely. By early summer, when the sun is strong, the plants can be watered every week, makeing sure they dry out in between. In fall the gaps between watering should become longer. Stop watering completely

until spring. If temperatures stay about 50° F a little water can be given from time to time, but there is a danger of getting lanky growth and discouraging the formation of flower buds or even losing the plant altogether. It is safer to keep them dry.

If you keep your plants outside in summer and have no room to store them in the house in winter, you can store them in a dark box, as long as the location is cool and frost-free. But again, do your homework. Not every plant we call a cacti is really one. The Christmas cacti (Schlumbergera) and the Starfish flower (Staplia) are not true cacti. They come from the African forest and are found there growing in trees. They still like dry winters but cannot take the cold. Cuttings 'N' Clippings2Did You Know?2On the Road3The Virtual Gardener4August Reminders4Agent's Observations5

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Cacti need fertilizer based on high potash content, like those for tomatoes and roses. Always dilute the fertilizer at half strength and do not spray on plants.

Cacti need well-draining soil mixes.

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Cochise County Cooperative Extension www.ag.arizona.edu/cochise/mg/

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Many cacti are shallow rooted and will do better in half pots or pans. The best time to repot is late winter to early spring. Always repot cacti at the same level as it grew before and add a final layer of washed grit. After repotting, do not water for at least two weeks.

Propagation for most cacti is from cuttings or seed. Sow the seed in spring (they need to be fresh), provide a steady temperature of 70° F and keep it moist, covered with a plastic bag or a glass. A layer of fine grit on the surface will help prevent algae growth. In taking cuttings remember that the cut must be allowed to harden. Do not water after planting for at least two weeks.

To prevent insect attacks the use of systemic rose fertilizer is recommended. It prevents insects and fertilizes at the same time. Mix it in the soil when replanting. Never turn a cacti as it has a sun side and easily can be sunburned and die. Always introduce a new plant slowly to a sunny exposure.

Angel Rutherford Master Gardener

Robert E. Call Extension Agent, Horticulture

Carolyn Gruenhagen Editor

Cuttings 'N' Clippings

* The next meetings of Cochise County Master Gardeners Association (CCMGA) are 5:00 p.m. August 6, and September 3, 2003 in Room 212 at of the University of Arizona South campus. The August 6 speaker is Clint Gray of Gray's Garden of Eat'n, a U-Pick, We-Pick produce farm located in Palominas. A tour of the garden has been tentatively set for Saturday, August 9 for CCMGA members.

* Saturday, September 6 from 8:00—9:30 a.m. a free *Water Wise* Workshop will be held at the University of Arizona South called *How Do I Plant?* with De Lewis, ISA Certified Arborist and Master Gardener.

* The fall tour xeriscape tour will also be held on September 6 from 9:00 a.m. to 1:00 p.m. Details will be available in mid-August from the Cooperative Extension office in Sierra Vista.

* Carr House is holding Sunday programs at the Carr House Visitor Information Center located approximately 2 3/4 miles up Carr Canyon Road (from Hwy 92 South of Sierra Vista turn right on Carr Canyon Road at the Mesquite Tree Restaurant). The August 10 program is *Learning to Love (or at least appreciate)* Arthropods with Mark Pretti, naturalist for The Nature Conservancy's Ramsey Canyon Preserve. August 17 will have Nancy Stallcup presenting her beautiful slide show of Arizona wildflowers. The August 24

program is *Brown Canyon—Then and Now* with Coronado National Forest archaeologists and John Kugler, Center for Academic Success. For more information contact the USDA Forest Service at (520)378-0311.

The Sierra Vista Area Garden * Club will hold its Fall Plant and Baked Goods Sale at the Bisbee Farmer's Market in Vista Park in the Warren Section of Bisbee on September 13 from 8:00 a.m. to noon under the big tree. They will feature plants from the member's gardens and goodies from their kitchens. Other items available at the market include farm products, plants, home crafts, nature crafts, food products, yard and garden art. For more information or if you would like to be a vendor call the Market Manager. Valerie McCaffrey at 432-7066 or e-mail: vallimac@ivwnet.com



? The 50 million lawns in the United States consume 270 billion gallons of water each week—enough to give everyone in the world a shower four days in a row. Each year, those lawns are slathered with 67 million pounds of pesticides and mowed by machines that use 580 million gallons of gasoline.

Discover Magazine July 2003, pg. 26

On the Road to Xeriscape Gardens

A trip to the Pacific Northwest led to a couple of outstanding Xeriscape gardens—each very different from what we would find in Cochise County. Both interesting and both unique.

The first we found was on top of the LDS Conference Center building in Salt Lake City. Tours are given twice a day of this two acre roof garden. We learned that Portland, Oregon architect Bob Frasea designed the top of the building to look like alpine meadows similar to those found in the mountains east of the city. This garden is unique in its engineering as it has no soil, only a growing medium called Utelite which is shale, heated to 1800 deg. F. when it expands like perlite. The "soil" depth is from 4" to 36" and the plant pallet consists of some 27 varieties of grasses and 86 of flowering plants plus aspen, bristle cone pine, and other trees. The volunteer gardeners did say that some of the plants have not thrived while others are happy and invasive so that in time, fewer but better adaped varieties will populate the meadows. They estimate that this garden uses about 1/4 the amount of water that a conventional streetlevel landscape would use because of the choice of plants.

The building is terraced inward from the block-long sides up 3 and 4 levels, each of which is planted with trees and shrubs so that the outward appearance of the building will be that of a tree covered mound when the growth is mature. On the central rooftop, there are several meadow sections which were in bloom with both native and



introduced xeric plants. The end of June brought a display of penstemon, mountain geranium, winecups, columbine, conefower, lupine, roses, clematus, honeysuckle, coriopsis, more and more, all among the grasses and trees. The plant selections are designed to provide April through October bloom. There is a rill type creek complete with waterfall cascading off the front of the building which completes the picture.

You never forget you are on a building in the middle of a city because of surrounding buildings and the pavement hardscape, but bend down to grass top and look across the meadow and the illusion is that of wilderness. This garden has been featured on several TV shows but they do not do it justice. Do yourself a favor and visit it if you are in Salt Lake City.

The second Xeriscape garden is in Summerland, British Columbia in the semi-arid Okanagan Valley. Like the Utah garden the plants have to be extremely cold tolerant in addition to being low water users. The Summerland Ornamental Gardens are on the site of a former agricultural experimental farm as this area is a major fruit (cherry, apple, peach and winegrape) growing area. The area gets 12-15 inches of precipitation a year so the orchards are irrigated from the river but treated municipal water makes it very expensive for residents to sprinkle the traditional landscape. The xeriscape plant pallet contains a number of the same items we would use and the demonstration gardens were blooming with penstemon, Apache plume, gypsophila, Russian sage, stachys, thymes, erigeron. centranthus, lavender, gaillardia, evening primrose, Mexican hat, hummingbird trumpet (zauchneria), various cactus, and vucca.

This demonstration garden uses about 50% of the water that a conventional landscape and contains many plants that we would not consider xeric here in Arizona. However, the garden is exceptionally beautiful as it is laid out like a traditional English flower border with shrubs and perennials as well as xeric annuals to keep even the most avid flower gardener pleased. We were delighted to visit with familiar friends planted so far from our own front yard and pleased to see the vast range many of our native plants have.

Joyce Gay, Master Gardener

The Virtual Gardener—2003 Growing Season

Some people wait until the monsoon starts before planting their summer vegetable gardens. Others plant early but lose their plants in the heat of June before the cooling summer rains begin and have to replant later. For those of you just planting summer gardens, here is a chart that shows you how many days until the average first frost in Sierra Vista.

To use the chart, you select a day from the "Day of the Month" column and read across the chart until you come to the column for the month. For example the date as I write this is July 25th. To find out

Days Remaining to Average First Frost in Sierra Vista								
Day o	of							
Mont	h:							
	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct
1		198	168	137	107	76	45	15
2		197	167	136	106	75	44	14
3		196	166	135	105	74	43	13
4		195	165	134	104	73	42	12
5		194	164	133	103	72	41	11
6		193	163	132	102	71	40	10
7		192	162	131	101	70	39	9
8		191	161	130	100	69	38	8
9		190	160	129	99	68	37	7
10		189	159	128	98	67	36	6
11		188	158	127	97	66	35	5
12		187	157	126	96	65	34	4
13		186	156	125	95	64	33	3
14		185	155	124	94	63	32	2
15		184	154	123	93	62	31	1
16		183	153	122	92	61	30	0
17		182	152	121	91	60	29	
18		181	151	120	90	59	28	
19		180	150	119	89	58	27	
20		179	149	118	88	57	26	
21		178	148	117	87	56	25	
22		177	147	116	86	55	24	
23		176	146	115	85	54	23	
24		175	145	114	84	53	22	
25		174	144	113	83	52	21	
26	204	173	143	112	82	51	20	
27	203	172	142	111	81	50	19	
28	202	171	141	110	80	49	18	
29	201	170	140	109	79	48	17	
30	200	169	139	108	78	47	16	
31	199		138		77	46	-	

August Reminders

- \Rightarrow Keep pulling the weeds
- \Rightarrow Fertilize
- \Rightarrow Prolong annuals
- \Rightarrow Plan your spring wildflower garden
- \Rightarrow Watch for nutrient deficiencies, sunburn, saltburn, over-
- \Rightarrow watering, and insects
- \Rightarrow Plant cool-season flowers and veggies

how many days until first frost, I go down the left hand column of the chart until I reach "25". Then I read across that row until I reach the column labeled "Jul" and see that there are 83 days until first frost. That's not too difficult is it?

Now that I have shown you the chart and told you how to use it, I need to add some caveats. First, the average dates of first and last frost (March 26 and October 16 for Sierra Vista) are not predictions of what will happen this year. They are based on historical averages. That means that a first frost is just as likely to occur before October 16 as it is to occur after October 16. This year may not be "average." Second, the actual data are based on the occurrence of a temperature of 32.5°F which is not life threatening for most garden plants. Third, the hazard to plants is caused by the length of time they are exposed to subfreezing temperatures. These data say nothing about the length of time the temperature remains at 32.5°F. Fourth, the reference temperatures were read at the "official" weather station for Sierra Vista which may be colder or warmer than your garden. And finally, there are some things you as a gardener can do to mitigate the effect of a light frost such as covering your plants. So consider the numbers as only a rough estimate of the risk you run if you plant a vegetable that takes more time to mature than the days to first frost the chart indicates.

I hear someone saying, "But what about me? I don't live in Sierra Vista." You'll have to construct your own chart. In the (Continued on back page)

The Agent's Observations

Q

What are these red fuzzy bugs that are climbing on my lawn? They have white markings on their backs and eight

legs and are from 1/8 to nearly a **2** inch long. Do they harm my ornamental plants?



These Abugs@ are really red velvet spider mites. They are not bugs but rather arachnids or members of the

spider family which have four pairs of legs, two body parts, no antenna and piercing, sucking mouth parts. These are the largest spider mites in our area. Most spider mites are quite small and a hand lens is needed to even see and identify them.

Control: The red velvet spider mite is a general feeder and usually does not cause excessive damage on plants. If they do, you can destroy them by stepping on them or spraying with insecticidal soap.



I have two things growing on my lawn. One is a black material that feels greasy when I touch it. It is on the ground

and also on the blades of grass. The other material is orangewhite in color and is moist to the touch, but dries out and is chalky the next day. Any ideas of what these things are?



Did you change your oil over your lawn? If not then the black substance is a slime mold that is dormant in the soil until large

amounts of moisture fall on the ground. The environmental conditions are then right for this organism to reproduce and migrate. The other material is a spore mat of a fungus that is in the soil. Again when environmental conditions are right the fungal organism, which lives in the soil, will produce reproductive structure to spread spores. **Control:** There is nothing that needs to be done to control these organisms. They were in the soil all along and have just put up reproductive structures. As the ground and air dry out they will disappear only to reappear when the environmental conditions are right.



My compost pile was doing very well, but after the recent rains we have had it really smells bad. What happened and what

can I do about it?



Your compost pile is too wet and therefore has very little if any air available to the aerobic organisms that break down

organic matter. Anaerobic respiration or fermentation has taken over and is causing the bad smells. **Control:** Turn over the compost pile to get more air introduced. This will allow normal decomposition of the organic matter. Try and keep the entire compost pile as moist as a well-rung out sponge. In the desert the outside of the pile dries out quickly. Re-wet the surface every couple of days as needed.



Are there any garden vegetables that I can plant for a fall harvest in Cochise County?



Many of the coolseason crops, those that can withstand freezing temperatures, do very well in

Cochise County during the fall. In fact, the fall in Cochise County is better generally than the spring to raise cool-season crops. These vegetables include the cabbage family, i.e. broccoli, cauliflower, kale and cabbage among others. Also, spinach, small beets, peasboth snap and edible pod, turnips, radishes, lettuces of all kinds, mustard greens and other greens may be grown. The onion family does best when planted in the fall and then overwintered and har-(Continued on back page)

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(The Agent's Observations continued from page 5)

vested in early summer. Members include garlic, onions and chives. Prepare and plant during the last week in August or first two weeks in September. I have had broccoli, cabbage, cauliflower and onions growing the whole winter long during mild winters, pulling the plants out in May to make way for warmseason crops.

Robert E. Call Extension Agent, Horticulture



(The Virtual Gardener continued from page 4)

chart below are some average early and late freeze dates from around the county to get you started. The easiest way to make the chart is to use a spreadsheet program such as Microsoft Excel.

If your location is not listed, go to the Arizona Climate Summaries Web page at http://www.wrcc.dri. edu/summary/climsmaz.html and select a location close to you. Once you have arrived at the page for the location of your choice, click on the links labeled "Spring 'Freeze' Probabilities" and "Fall 'Freeze' Probabilities" to get the average latest and earliest frost dates. The values I used are for 32.5°F under the column headed "50%."

Until next time, happy surfing!

Gary A. Gruenhagen, Master Gardener gruenha@sinosa.com

Location	Avg Last Frost	Avg First Frost
Benson	Apr 9	Nov 1
Bisbee	Mar 28	Nov 21
Douglas	Apr 17	Oct 29
Fort Huachuca	Mar 29	Nov 16
Pearce-Sunsites	Apr 15	Oct 31
Willcox	May 29	Oct 23