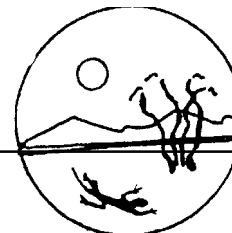


High on the Desert

Cochise County Master Gardener

Newsletter



The University of Arizona and U.S. Department of Agriculture cooperating.

Going Native?— How to decipher gardening books and choose the right plant for your garden

A common misconception about growing plants is that if a plant is native it should do well in our gardens. This is not always the case. When selecting plants for the landscape the gardener also needs to take into consideration where plants are distributed naturally. These factors are governed by rainfall, acid/alkaline soils, elevation, heat, and freezing weather.

As an example I'll use one of my favorite plants in my garden - *Arctostaphylos pungens*, Manzanita. This common plant is found in the Huachuca Mountains. The Huachuca's elevation places it in an area where it receives more than twenty inches of rainfall per year, thus the soils are acid. I live

in the greater San Pedro Valley where the average rainfall is 15 inches resulting in alkaline soil. Therefore to raise happy manzanitas I need to keep track of my yearly rainfall total. In the winter I supply the plant additional irrigation to supplement the rainfall it would receive naturally in the mountains.

When selecting plants for the garden often times I find that the plant that I really want is not the best choice. I really wanted an Arizona Sycamore tree and planted one. It died in a record breaking seven days. I know that it is found growing naturally in moist canyons and along streambeds and that my arid backyard and my stubbornness about not watering made it an unsuitable choice. When selecting plants for the landscape keep in mind that if the plant's natural environment is not duplicated or compensated for the plant will not thrive. A little bit of research to become better acquainted with the factors that

govern plant distribution will help determine if it's a candidate for your landscape.

Fortunately, many desert garden books give us clear clues on choosing the right plant for the garden. Judy Mielke's book, *Native Plants for Southwestern Landscapes*, outlines the native habitat of plants such as dry limestone hills, washes, gravelly plains, rocky hillsides, streambeds, slopes, grasslands, and so on. George O. Miller's *Landscaping with Native Plants of Texas and the Southwest* not only lists the native distribution but also lists the water requirements on many plants. If you have caliche or rocky soil you may be surprised how many plants actually thrive in those conditions!

Next time – gardening books for springtime reading.

Cheri Melton
Master Gardener

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● NOTICE ●

Attached to this newsletter you will find a Master Gardener Mailing List Update form. If you wish to continue receiving this newsletter you must return it by mail or dropping it off at the Willcox or Sierra Vista Cooperative Extension by April 21, 2001!

Cuttings 'N' Clippings

► Cochise County Master Gardeners hold their monthly meetings the first Wednesday of each month at the Sierra Vista Library at 5:00 p.m.

► The Water Wise/Master Gardener Xeriscape Tour is looking for show-offs. Think you qualify? Each spring and fall, the tour features low water use landscapes in the greater Sierra Vista area. Four to five landscapes are chosen according to certain criteria including: Water conserving design, emphasis on low water use plants, the incorporation of rainwater harvesting techniques, irrigation design, and use of mulches. If you would like to have your yard considered, contact the Water Wise Program at the Sierra Vista Cooperative Extension office for a visit.

► Master Gardener Tour—Vegetable Inspection Station—Nogales, AZ on March 21. Meeting place will be the Holiday Inn Express on Mariposa Blvd. in Nogales departing at 8:00 a.m. The tour will be both in Mexico and Arizona with presentations by USDA, APHIS, FDA, and Produce house owners. Call Joyce at the Sierra Vista office for reservations.

► Cochise County Master Gardeners have available for sale water probes, *DesertLandscaping* CD ROMs, and a variety of t-shirts. All are reasonably priced. Stop by or call the Cooperative Extension office in Sierra Vista for details.

► Tucson Botanical Gardens

2150 N Alvernon, Tucson, AZ
(520) 326-9686
Spring Plant Sale, March 17 & 18,
9:00 am-4:00 pm
Home Garden Tour, March 31,
April 1
Herb Fair, April 21
Weird Plant Sale, June 23

► Desert Survivors

1020 W 22nd St, Tucson
(520) 884-8806
Spring Plant Sale, March 31, April
1, 8:00 am-5:00 pm

► **Diamond JK Nursery**, located 1/2 mile South of intersection Hwys 82 & 83, Sonoita Spring Plant Sale is April 3-7; Exotic Chili Sale is last week of April

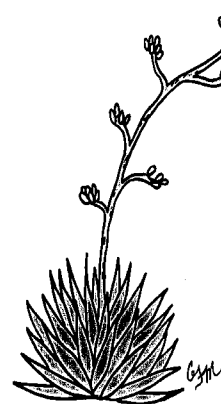
► Tohono Chul Park

7366 N Paseo del Norte, Tucson
Spring Plant Sale, March 17, 9-5
& 18, 10:00 am - 4:00 pm
Wildflower Festival, April 1



March Reminders

- ✓ prune roses
- ✓ start seeds indoors
- ✓ check cactus for fungus
- ✓ plant cool-season veggies
- ✓ reconsider your water usage
(call Water Wise for a free audit)
- ✓ remove and replace winter mulches



Robert E. Call

Robert E. Call
Extension Agent, Horticulture

Carolyn Gruenhagen
Editor

The Mysteries of Irrigation Unveiled—Lawns

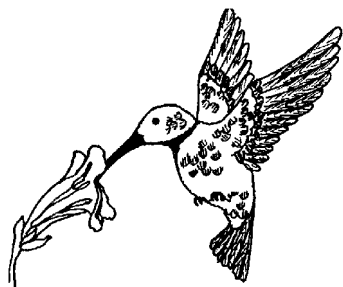
Do you have a lawn sprinkler system and don't have a clue as to how it works? Or perhaps you are familiar with your system but need help on the fine-tuning.

If you have any questions about turf irrigation, come to a free workshop, Saturday April 7, 9:00 - 10:00 a.m. at the University of Arizona South, 1140 N. Colombo, Sierra Vista (behind Cochise College). Hugh Humphries, a private irrigation consultant from Tucson based Water Wise, will be the guest speaker and will talk about lawn watering systems. As a consultant to Tucson Water Company, Hugh also teaches a Pima Community College class on irrigation.

This is the 4th in a monthly series of free workshops sponsored by the Water Wise Program. For a full schedule, visit the web site at www.ag.arizona.edu/cochise/waterwise or call the office at 458-8278, Ext. 2141.

P.S. It's okay if you have a lawn, just be Water Wise!

Cado Daily, Water Conservation Educator, Water Wise



High on the Desert

It is with great pleasure that I say "Thanks! Job well done!" to all the dedicated volunteers of the Cochise County Master Gardeners Association and The University of Arizona Cooperative Extension. The 8th Annual High Desert Gardening & Landscaping Conference was wonderfully successful! This year's attendance was 195 over the two days. From all reports everyone had a great time and learned a lot.

Special thanks to our sponsors: **Bella Vista Water Company, Sierra Vista and Desert Trees Nursery, Tucson.**

Thanks to the following:
Program Advertisers: ACE Garden Place, Sierra Vista; Pueblo del Sol Water Company, Sierra Vista; Arizona Gardens, Hereford; The Bindery, Hereford; Desert Trees, Tucson; Dreeszen Landscape Materials, Sierra Vista; The Arizona Folklore Preserve, Hereford; High Desert Herb Company, Hereford; Mountain View Koi Fish & Aquatic Plants, Hereford; Rainy Day Gutter Manufacturing, Sierra Vista; Rock World, Hereford; Safeway, Sierra Vista; San Pedro House Books & Gifts, Sierra Vista; Southwest Desert Images, Sierra Vista; Southwest Gas Corporation, Sierra Vista; Surplus City, Sierra Vista; Water Wise and Energy Smart, Ft. Huachuca; and Whetstone Southwest Pottery & Fountains, Whetstone.

Exhibitors: Ace Garden Place, Sierra Vista; AZIDA, Inc. Elfrida; Desert Trees Nursery, Tucson; Diamond JK Landscape, Sonoita; High Desert Herb Co., Hereford; Jim Sudal, Pottery, Phoenix; Kazaam Nature Center, Patagonia; Legacy Land & Cattle Co., Tombstone; Mountain View Koi Fish & Aquatic Plants, Hereford; and The University of Arizona Bookstore, Sierra Vista.

Non-Profit Exhibitors

Door Prize Donors

Speakers: A great big thank you! We couldn't have done it without you!

Committee chairpersons and members who gave so much of their time, energy, and talents to make it all work: Rob Call, Extension Agent, the Cooperative Extension Staff in Sierra Vista and Wilcox, Elisabeth Baker, Carole Beauchamp, Emily Boyd, Cado Daily, Gwin Garcia, **Jan Groth, MC, Gary Gruenhagen, Registration Chair**, Laura Guilford, **Janet Jones, Treasurer**, Liz Kras, **Barbara Kuttner, Sponsorship Chair, De Lewis, Centerpiece Creator, Ginger Maxey, Artist, Cheri Melton, Publicity Chair**, Angel Rutherford, and **Helene Wingert, Facilities Chair.**

**Thanks to all of you!
YOU made it happen!**

*Carolyn Gruenhagen
2001 Conference Coordinator*

THE VIRTUAL GARDENER

PHENOLOGY

Recently I was leafing through a national magazine and came across an article on phenology. Phenology—not to be confused with phrenology, the pseudo-science of cranial topography—concerns itself with the study of recurring events in the life cycles of plants and animals such as the first appearances of leaves, or buds, or flowers on plants or the hatching of insects. I first became interested in the subject many years ago when I bought a book on gardening and weather at a used book sale and have wanted to write a newsletter article on it ever since. The problem was that, until recently, there was not much information on the Internet about phenology. The magazine article prompted me to look at the Internet again, and to my surprise a Google.com search on the term turned up over 24,000 hits.

Because biological systems are extremely sensitive to temperature, moisture, and sunlight they make excellent indicators of seasonal conditions. Some plants, for example, only leaf out after they have received a precise number of chilling or heating units. Native plants, especially, have had a very long time to adjust to all the quirks in the local climate and are very rarely caught by surprise by late spring cold snaps. Those of us who have been around this area for a long time have noticed, for example, that mesquites are very

conservative when it comes to leafing out in the spring. By the time the mesquites leaf out, you can be pretty sure that winter is over and spring has arrived for sure. Experienced gardeners have long learned to depend on certain critical biological events as signals for when it is safe to plant certain crops. These gardeners also know which events signal the perfect time to attack insect pests using integrated pest control (IPC) methods. The classic example of this is an old Indian tradition in New England to plant corn only when the leaves on elm trees were the size of squirrel's ears. Although this may not be too useful to a gardener in the High Desert of Southeast Arizona, it gives you an idea of how phenological data can be used.

The key to success in applying phenology is careful observation and recording of natural biological events over a period of time. Records should include the name of the plant, a description of the event (e.g., appearance of the first flowers), the date on which the event occurred, the location, and perhaps some additional data concerning soil type, moisture conditions, slope, and sunlight exposure. The objective is to identify easily recognizable indicator events on perennial plants that will serve as signals for the start or ending of gardening activities. At first, it would be wise to record many different events in order to

amass a large quantity of data. As the data accumulates, it should be analyzed to look for correlations between events and significant weather events such as frosts. Imagine how useful it could be to know that the first appearance of leaves on a particular native plant signals the earliest safe date for transplanting tomatoes from the patio to the garden.

Although a gardener can record phenological events only within his or her own yard, the most useful collections of phenological data are those collected over a larger, but climatically uniform, area. In Cochise county we would have many such areas that we would like to track separately. Send me an e-mail if you would be interested in contributing to a phenological database for Cochise county. If there is enough interest the Master Gardeners could create some guidelines, set up a database, and record phenological data for all to use. The data could be made available through the newsletter or possibly on the Cochise County Master Gardeners Association Web site.

If you would like to read more about phenology on the Web check out www.sws-wis.com/lifecycles/ Although this site pushes a particular software program to record phenological data, it also contains lots of valuable information about phenology and an extensive list of links to other phenology sites.

Happy surfing.

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

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Conference Feedback

One of my duties as chairman of the Registration Committee for the High Desert Gardening and Landscaping Conference is to process the evaluation forms we use to get feedback from people who attend the conference. After the conference I enter the data on each evaluation form into a database and tabulate the results. These are furnished to each member of the conference committee as well as to the facility where the conference was held and each speaker. I can assure you that the committee takes these comments very seriously and often has lively debates about them.

As I read through the ratings and comments each year, I often wish I could talk to the people who submitted them, so this year I decided to do the next best thing and write a short article on the subject.

For those of you who haven't attended one of our conferences, we ask our attendees to rate the meals, facilities, facility staff, and each speaker on a scale from 1 to 5, with 1 being the best rating. We also ask if people would be inclined to attend the conference next year by using the same scale. With over 60 percent of attendees responding, the overall results this year were:

Meals	1.8
Facility	1.3
Facility Staff	1.3
Average for all Speakers	1.7
Return next year?	1.2

Several themes run through the comments each year. I would like to briefly talk to four of them.

1. Meals. Food seems to generate more comments than any other single issue. On average for every complaint we get about the food, we also get equal and opposite praise. All I can say is that it is very difficult to please nearly 200 people no matter what you do. We vary the menu each year so at

least the same people are not unhappy two years in a row, but we are pretty much limited by the menus provided to us by the facility. This year we received many complaints that there was no dessert with lunch. The reason for this is that it would have raised the price of attending the conference by \$5.00 and we didn't think it worth the extra cost.

On a related topic, we also get many request for us to allow people to pay a lower price just to attend the sessions without paying for meals. It doesn't work that way. The facility (whether the Lakeside facility on Post or a hotel downtown) sells us the meals and gives us the room space. If we don't buy the meals we don't get the space or if we rent the space we pay almost as much as buying the meals.

2. Facilities. We are more uncomfortable than most people in the audience when a public address system doesn't work, the rooms are too hot or too cold, or some other problem develops with the facility, and we try to remedy them as fast as possible, but sometimes the problems cannot be solved immediately. The failure of the PA system in the ballroom during the conference is an example. The system had been recently installed and was obviously not working correctly.

We also realize that some of the rooms where presentations are held are not ideal classrooms. Unfortunately there are no facilities in Sierra Vista that can offer us the space we need, the quality of meals we want, and the ambiance we would like at any price. So we have to compromise a little to get what we can live with at a price we can afford.

3. Speakers. We mention this at the conference but many people forget that all our speakers are volunteers. The only remuneration they get is the food they consume at the conference. Some are professionals from

Universities, government agencies, non-profit organizations, or businesses. Others are Master Gardeners who are passionate about their subjects and want to share their experiences with you. If we had to pay for our speakers, the cost of the conference would rise significantly.

4. Topics. We get many comments that a particular session was too technical, too elementary, too academic, etc. As with the comments on the food, for every comment we get on one end of the spectrum we usually get one on the other end as well. One of the reasons we have so many different speakers and topics is to provide something for everyone. What is too technical for you may be just right for someone else and vice versa. The conference is not just for novice gardeners or for expert gardeners, it's for both.

We use your feedback on speakers in two ways—first, to see which topics are popular and which are not, and second, to see which speakers are worth inviting back in the future and which are not. Sometimes a topic seems to us like something people would find interesting and enlightening when we're putting the program together, and we discover from the feedback that it wasn't. Or sometimes the title of a presentation proposed by a speaker does not accurately describe what is actually going to be presented. Sometimes a speaker comes to us highly recommended and is a great disappointment in the flesh, the kind of person who could put a hyperactive child to sleep. These speakers do not get invited back.

We work very hard to make the conference rewarding for everyone and try to learn from our experiences. Hopefully every conference will be a little better than the previous one.

*Gary A. Gruenhagen
Master Gardener*

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Address Correction Requested

Call's Comments . . .

Q. How long can I wait to prune my fruit trees? Some seem to have bud swelling occur.

A. With the warm winter we have had this year many plants have had their rest and much of the dormancy requirements met. This does not bode well for the fruit crop because of the possibility of early bloom and freezing temperatures.

Fruit trees should have major pruning done during the dormant season, after rest is completed. In Cochise County that is usually after the first of the year. If pruning is done too early plant damage from cold and freezes can occur. Fruit trees can be pruned until flower pedals fall. For stone fruits; i.e. apricots, almonds, cherries, peaches, plums and nectarines and for pome fruits; i.e. apples, pears, and quince pruning can continue until bloom is completed.

For more information plan to attend the Fruit and Nut Tree Pruning Demo on March 14.

Robert E. Call
Extension Agent, Horticulture



Fruit & Nut Tree Pruning Demo

Wednesday, March 14, 2001
11:00 AM – 12:00 PM
2524 E. Choctaw Drive, Sierra
Vista

From S.V., take Highway 92 south to Choctaw Dr.
Turn right.

Everyone welcome!