High on the Desert Cochise County Master Gardener Newsletter

Vol. 16, No. 5 MAY 2005

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

Introduction to Creating a Wildlife Habitat

There are four basic components to habit gardening: water, food, shelter, and places to raise young.

The best approach to a habitat garden is DIVERSITY. Select a variety of plants that will provide fruits, berries, seeds & nuts, nectar & pollen, attract insects, and offer shelter and nesting opportunities throughout the year. Diverse habitat types include a meadow here, woodland area over there, an area where tall grasses, weeds, and wildflowers are allowed to go to seed, a row of shrubs near the fence line, a brush pile out back, *etc*. These different types of *ecotones* create "edges" and will attract a wide assortment of birds, butterflies and other creatures.
Here is the homework:

ASSESS THE GARDEN: What worked well in the garden last year and more importantly, what didn't work. If plants are not thriving—why? Is it due to a lack of water—then perhaps they need to be relocated to a spot where they would receive an adequate amount. Perhaps the garden has matured and plants that were once in sunny spots are now shaded by large shrubs and trees resulting in leggy plants and sparse blooms. Evaluate and make a list of chores that need to be addressed. If starting a new garden don't even think about getting any plants until a temporary or permanent irrigation system is installed.

DRAW A MAP: Draw a map of the garden to include all hardscape, the house (mark the window locations for wildlife viewing from inside the house), and any future plans such as greenhouses, RV pads, *etc*. that you may want to install at a later date. Don't forget to mark heavy traffic areas. The map doesn't need to be to scale but you can certainly use graph paper to make a detailed map to scale. This will help you see your landscape from a "birds-eye-view."

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Cochise County Cooperative Extension
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(520) 458-8278, Ext. 2141

450 Haskell, Willcox, AZ 85643
(520) 384-3594

Cuttings 'N' Clippings

❄ The next CCMGA meeting is 5:00 p.m. Thursday, May 5, 2005 at the University of Arizona South campus, Room 503. Guest speaker is Cheri Melton on *Creating a Habitat Garden.*

❄ The free *Water Wise* Workshop on Saturday, May 7, from 8:00 to 9:30 a.m. at the University of Arizona South campus will be presented by Rob Call, County Horticulture Agent, called *Plants Don't Waste Water—People Do!* For more information contact Cado Daily at the Cooperative Extension, Ext. 2139.

❄ The free Spring Xeriscape Tour sponsored by *Water Wise* and the Cochise County Master Gardeners is also scheduled for Saturday, May 7. Tour maps will be available from the Cooperative Extension office in Sierra Vista (520) 458-8278, Ext. 2141, and at the *Water Wise* presentation that morning. Visit these yards and see how much choice you have in creating your very own water wise yard!

❄ Cochise College is offering another Pond Building and Maintenance Class, Saturday, May 7, 2005, 1:00—5:00 p.m. For more information, call 515-5446. Instructor will be Angel Rutherford.

❄ A Spring Wildflower ID Walk is scheduled for May 14, 8:00 a.m.—Noon sponsored by the Cochise County Herbarium botanists. Meet in front of UAS. There is a fee for this event. For more information contact Cado Daily at the Cooperative Extension, Ext. 2139.

In a Desert Garden

More Mediterranean Herbs

Another plant from the Mediterranean region is Horehound—*Marrubium vulgare*. This is a rather invasive species and in our canyons it is considered a weed. Several years ago our Garden Club volunteered at the Ramsey Canyon Folklore Preserve, where we dug up horehound that had taken over all the planting beds. I took home a start for my garden. As most areas of my garden are dry with little irrigation the plant is not as invasive but still looks good. I like the velvety gray leaves and the strong aroma.

From the dry hillsides of Greece and Turkey comes oregano, another invasive but very lovely plant that looks good in all seasons. The flowers are pollinator magnets and predatory flies are attracted to it. These flies are very helpful in attacking the bad guys in a garden. I do not use any poisons in my garden, not even organic ones. I rely completely on the work of the natural predators and have never had a bug problem. If you give the plant room, oregano is very lovely. It fills out a bare spot in no time and is not choosy about soils. There is also an Italian variety.

If you are like me and like the spicy varieties of lettuce, sorrel—*Rumex acetosa* is—is the plant for you. This plant grows all over the Mediterranean countries and has found its way well into all of Europe. The flavor of the leaves is lemony. It likes to grow in disturbed grounds, between hot rocks and along railroad lines. I remember my grandmother making salads and soups with it. In most countries it was considered a weed and pulled. Now it is rather rare and considered a culinary specialty and served in fancy restaurants. Sorrel is an easy, undemanding plant to grow and it stays evergreen. The flowers are not very attractive and best cut off to preserve the fine taste of the leaves.

The last herb to be discussed is French tarragon. I can go on and on, but I am running out of space. Tarragon—*Artemisia dracunculus*, is one of the basic herbs in French cuisine. It is a plant with lots of flavor and a manageable growth habit. Stay away from Russian tarragon as this plant can grow to 10 ft. tall.

Angel Rutherford, Master Gardener

May Reminders

- Deep water
- Plant warm season crops
- Check plant ties
- Control pests
- Control weeds (*Controlling Weeds*—a bulletin available from the Cooperative Extension)

Robert E. Call

Robert E. Call
Extension Agent, Horticulture

Carolyn Gruenhagen
Editor

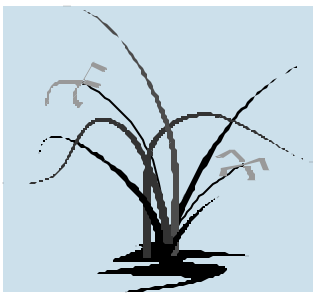
The Orchid

Have you eaten an orchid today? Did you know that the vanilla bean comes from an orchid?

One of the main reasons I attended the High Desert Gardening & Landscaping Conference in March was to hear Marie Hirsch discuss orchids, their care and cultivation. I am fascinated by orchids, have killed three and have two vibrant plants that are no longer blooming. I was hoping Marie could give me some hints. She brought some wonderful plants from her greenhouse. Having a greenhouse allows her to create the most perfect of conditions for most orchids. Her plants made us all envious.

Marie gave us some wonderful information regarding the care of our orchids. Most of us with orchids know that they need humid conditions. Here in the desert they would do very well in the bathroom where the humidity will be higher when the shower is used. Some people keep their orchids on a raised bed of rock in a tray filled with water in order to raise the humidity.

Marie also said that orchids do not do well with tap water. She suggested we use distilled water or water treated by reverse osmosis. The water should always be at room temperature. Occasionally we can use tap water for the minerals it contains, but Marie suggested we set the water out for 24 hours so the chlorine can evaporate. Orchids need to be fed a fertilizer (20-20-20) every other watering. She suggested using less fertilizer than the container says.



We were also advised to keep our plant out of the Arizona direct sunlight as it will burn the leaves, yet the plants love lots of bright indirect light. Marie mentioned that the plants enjoy a gentle breeze similar to their natural habitat in the rainforest. An open window or the use of a gentle fan is recommended. Orchids prefer a temperature between 65° F and 80° F with a nighttime drop of 10-20°.

Orchids are such fascinating plants that they have been collected for centuries. Orchid hunters actually fought and killed each other over the first finds. Sections of rainforest would be burned in order to prevent another collector access to the plants. It was thought that orchids were too "sexy" for women, so for a time women were forbidden to collect them.

DNA testing on orchids place them at the time of the dinosaurs, as one of the first flowering plants. Does Arizona have orchids? Yes, in our more humid mountain regions, but do not go looking to add one to your collection. All Arizona orchids are protected plants and it is illegal to collect them.

If anyone would be interested in forming an "orchid club" please contact me at 378-6102.

Karen Devine, Master Gardener Associate

(Introduction to Creating a Wildlife Habitat Continued from page 1)

TAKING INVENTORY:

A) Make a list the wildlife you would like to attract to the garden.
B) Make a list of all the plants currently in the garden.
C) Now divide the plants into the following categories:
   1. Plants that produce berries, fruits or nuts
   2. Plants that provide nectar for butterflies and hummingbirds
   3. Plants that produce seeds for birds and other animals
   4. Plants that attract insects and bugs both good & bad
   5. Plants that provide shelter and shade for animals
   6. List any features and plants that you DON'T like in your garden

Number 6 may seem strange but I have talked to too many gardeners who live with things they don't like! My belief is that one should LOVE everything about their garden. Focus on gradually replacing plants and features with things you would LOVE to see in your garden.

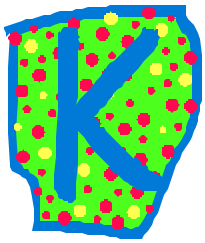
If the spirit moves you start NOW by removing plants or garden features you don't like.

Cheri Melton, Master Gardener

(Reprinted from the April 2002 Cochise County Master Gardener Newsletter. Cheri's garden is a certified Backyard Wildlife Garden. If you have empty plant containers, she would love to have them. Contact her at planthoe@earthlink.net)

The Virtual Gardener—Garden Chemistry III

For the past two months we've taken a look at two of the three so-called essential elements of plant nutrition, nitrogen, and phosphorus. This month we will look at the last of these elements—potassium.



Potassium compounds are sometimes referred to as "potash" because the old fashioned way of obtaining potassium carbonate was by leaching wood ashes in an iron pot. The chemical symbol for potassium is "K" rather than a combination of letters beginning with "P" because it comes from the German word "Kali" which means "potash."

Most of the potassium found in soils was originally derived from the abundant mineral feldspar as it weathers to clay. The bad news is that feldspars are fairly resistant to weathering and only slowly decompose to release their potassium. The good news, at least for those of us living in the high desert, is that potassium is most available to plants when the soils are alkaline.

Although potassium comprises less than about 6 percent by weight of most plant material, it plays a very important role in plant biochemistry, modulating the movement of water and nutrients into and out of plant cells and activating over 50 enzymes that control photosynthesis and respiration processes. One of the most important jobs of potassium, especially in our arid environment, is to control the opening and closing of stomata.

Plants exchange gasses and water with the atmosphere through tiny openings on their leaves called stomata. On a hot afternoon when water is leaving the plant through the stomata faster than the roots can absorb more water from the soil, the stomata close to conserve water. When the plant is no longer stressed for water, the stomata open again. Specialized cells, called guard cells, border each stoma and are responsible for opening and closing them. Their action is controlled by the movement of potassium ions. Potassium ions move into the guard cells from surrounding tissues when the stomata are open and move out when they are closed.

Symptoms of potassim deficiency in plants first appear with chlorosis of older leaves at the base of the plant along their margins or as a general mottling. As the deficiency worsens, the chlorosis develops into necrosis that begins at leaf tips and margins and between veins and moves toward base of the leaf.

The third of the three numbers on a commercial fertilizer container tells you the percentage of K_2O by weight in the fertilizer. To determine the amount of potassium (K_2O) in a quantity of fertilizer multiply the third of the three numbers by the weight of fertilizer and divide by 100. For example, 5 pounds of a bloom promoting fertilizer with a rating of 10-50-10 contains (5 X 10)/100 = 0.5 pounds of K_2O.

To learn more about potassium and other fertilizers point your browser at **http://www.gardenersnet.com/atoz/chemistry.htm** or try a Google search on the term "potassium fertilizers."

Until next time, happy surfing

Gary A. Gruenhagen, Master Gardener
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"To witness change and growth and evolution and the cycle of nature in our gardens . . . Is truly miraculous and one of the greatest joys in life."

—Howard-Yana Shapiro
Author/Seedsman

The Agent's Observations—Curtis W. Smith, Ph.D.
NMSU Extension Horticulturist Specialist, Guest Author

Concrete Olla Experiment

One of the limiting factors anticipated using traditional unglazed clay jars as ollas is breakage by frozen soil in winter, or by enlargement of woody plant roots adjacent to the olla. One idea to counter these concerns is to make ollas of porous concrete formed around metal or plastic mesh reinforcement to create a stronger olla. Otero County New Mexico Master Gardener, Connie Klofanda, sent me a recipe for "hypertufa" a porous concrete that looks promising. For Cochise County Master Gardeners (and others) who are interested in joining with us in this experiment the recipe is printed below. Please report your successes (and failures) so that we may share this information with others growing plants with ollas.

Hypertufa Mix for Planters

Note: for all recipes -

Cement - Portland cement available at home improvement stores in 80 pound bags. Sometimes you can find it in smaller bags.

Peat Moss - is available at garden centers.

Vermiculite - The best is block fill, a fine vermiculite, used for insulating concrete block. A trade name is Zonolite ™. It comes in a huge bag for less than $20.00. It is available from specialty building supplies stores (84 Lumber says they have black fill, I have not gone there to price it and see.) Vermiculite from garden centers is coarser and costs a lot more.

Fiber Mesh - short pieces of nylon fiber added to concrete for strength. Available at concrete specialty stores.

Sand - silica sand (#40 or #60) available at home improvement stores (over by the stucco department). You can use other sands but the mixture will be coarser.

Part - means part by VOLUME. (e.g. 1 bucket cement, 1½ bucket of vermiculite, 1½ bucket of peat moss)

Author's Favorite Recipe (from author of document)
- 1 part cement
- 1 ½ parts peat moss
- 1 ½ parts vermiculite
- optional fiber mesh

Other Variations:

Standard Recipe
- 1 part cement
- ¾ parts sand
- 1 ¼ parts peat moss
- 1 part vermiculite

Tufa-like Mix
- 1 part cement
- 1 part sand
- 2 parts peat moss

Sandstone-like mix
- 1 part cement
- 1 ½ parts sand
- 1 ½ parts peat moss

New Mexico Master Gardener Conference

Want to learn more? Registration is open for the New Mexico Master Gardener State Conference June 9, 10, & 11 at the Fairgrounds in Alamogordo, NM. For information contact Connie Klofonda at **jimklofonda@zianet.com** or (505) 443-1424.

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THE BISBEE FARMERS MARKET WANTS YOUR PRODUCE!

Local growers are invited to come sell their fresh fruits and vegetables on Saturday, May 7 when the Bisbee Farmers Market starts its fourth season of weekly Saturday morning markets. There is a huge and ever increasing demand for high quality produce that hasn't traveled hundreds of miles. Customers will line up for your lettuce, spinach, early greens, herbs and plant starts, wintered-over carrots, beets and other root crops as well as greenhouse strawberries and other produce.

Vendor applications for the Bisbee Farmers Market can be obtained by contacting Claudia Reynoso at (520) 432-9487 or at **reynoso@co.cochise.az.us** or picked up at the Cochise County Health Department at 1415 Melody Lane, Building A in Bisbee.

The Bisbee Farmers Market will be open every Saturday morning from 8 a.m. to noon from May 7 to October 29. The market is located in the south end of Vista Park in the Warren section of Bisbee.

The Bisbee Farmers Market is co-sponsored by the City of Bisbee and the Bisbee Chamber of Commerce and supported by the Cochise County Health Department.

Did you know . . .

Percent of households with the following hobby:

- 7% Stamp collecting
- 21% Woodworking
- **17% Bird watching**
- **91% Flower gardening**
- 22% Needlework
- 10% Quilting
- 13% Wine appreciation
- 14% Sweepstakes
- 27% Coin collecting

-Shopper's Voice