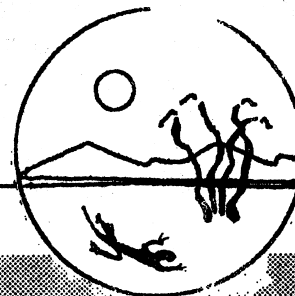


High on the Desert

Cochise County Master Gardener

Newsletter



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

OUCH!

WHEN BAD THINGS HAPPEN TO GOOD PEOPLE

"Summer time and the livin' is easy," says the Gershwin song. How true—not only for humans but for a variety of other creatures as well. Unfortunately for us some of those creatures are venomous and we need to be on the lookout for them, especially at this time of the year.

Rattlesnakes, black widows, Arizona brown spiders, and scorpions do not set ambushes for hapless gardeners. Like us they are just trying to make a living, and we encounter them when we intrude into their work areas. You are not a potential meal for one of these creatures but a very real threat, and the animal/insect feels it has to act quickly to defend itself or die.

The best protection against these critters is a little common sense. Keep your eyes open when you're out in the garden, watch where you put your hands and feet, always wear gloves and shoes, and always shake out shoes and other articles of clothing before you stick parts of your body in them. If the worst happens and you get stung or bitten, seek medical attention or call the Arizona Poison and Drug Information Center (APDIC) at the University of Arizona. The number is 1-800-362-0101 and poison control specialists are there to help 24 hours a day 365 days a year. According to

APDIC statistics, over 60,000 people contacted the Center in 1995 and more than 70 percent of all calls are taken care of in the home.

Here are a few tips from the experts:

- If you are bitten by a rattlesnake, remain calm, try to keep the bitten area as motionless as possible, and get medical attention as soon as you can. Do not use ice on the bite, apply a tight tourniquet, or take any drugs or alcohol.
- If you are bitten by a black widow spider or Arizona brown spider, call the APDIC. Bites are rarely fatal to healthy adults, but children, the elderly, or people suffering from high blood pressure should seek medical attention immediately.
- If you are stung by a scorpion, call the APDIC or seek medical attention. Scorpion stings are considerably more painful than a bee sting (I can attest to that after a couple of stings) and may cause numbness and tingling in the affected area for several weeks, but they are seldom fatal to healthy adults. As with spider bites, children, the elderly, and people with respiratory problems are at higher risk.

*Gary Gruenhagen
Master Gardener*

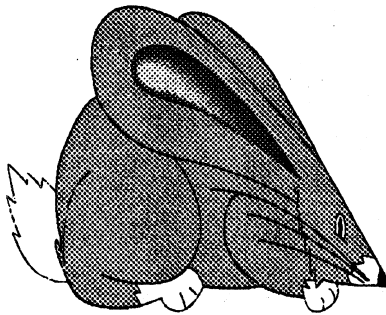
Cochise County Cooperative Extension

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(520) 458-1104, Ext. 141

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(520) 384-3594

Cuttings 'N' Clippings

➤ Due to the mild winter and lack of rains, the rabbits found me (and I think they advertised my address on the bunny internet) and destroyed the garden. BUT – there were a few plants that did not interest them.



www.cherisgarden.wow

Here are those fabulous rabbit-proof plants:

- PEROVSKIA¹ (Russian sage)
- SALVIA GREGGII¹ (red salvia)
- SALVIA CLEVELANDII¹ (San Diego salvia/sage)
- SANTOLINA (lavender cotton)
- PENSTEMON
- BUDDLEIA DAVIDII¹ (butterfly bush)
- AGAVE, CACTI & CHOLLA (okay, so this could be considered cheating, but please don't overlook these hardy natives)

Have you got a plant that escaped the wrath of rabbits, deer, or javelinas? Let us know—contact the U. Of A. Extension office.

¹ indicates that a plant review can be found in the Sept 95 MG Newsletter.

Cheri Melton
Master Gardener/Staff Writer

➤ Thirsty? If you are, then I bet your plants are, too. Rob Call tells us to use a simple long screwdriver to check the soil. Stick it in the ground, and if it goes in easily, you are watering correctly, but if it doesn't your plants are thirsty.

When purchasing weep hoses for watering your lawns and gardens, be sure to buy enough parts to the particular hose that you buy so that you have extras on hand. Each hose manufactured today is different. Some use the measurement of the size of the hole found in the hose and some the size of the hose itself.

We should plant our garden where plants receive the best sunlight, but you have to realize where we are living. This is hot, sunny Arizona. You enjoy shade, and so do some plants. Shade cloth, or nurseryman's cloth, like you see in many nurseries, will protect the plants from the heat of the sun. Be sure to anchor the shade cloth to something so that it won't blow away, and you should be able to roll the cloth up or position it so that it will allow the sun to reach the plants and give it valuable warmth, but hopefully not cook it to death.

Barry R. Bishop
Master Gardener/Staff Writer

Newsletter Staff:

- Barry R. Bishop
- Carolyn Gruenhagen
- Cheri Melton
- Virginia Westphal

Robert E. Call, Extension Agent,
Horticulture

Master Gardeners To Unite!

The Cochise County Master Gardeners are attempting to become organized! We will be meeting on the first Wednesday of each month at 5:00 pm at the U. of A. Sierra Vista Campus. The next meeting will be held June 5 and we hope everyone who has taken the Master Gardener Course will plan to attend. Monthly speakers or functions will be planned, by-laws, etc. need to be written, and officers will be elected.

Plan to attend and let's get our organization off to a great start! See you there - - -

June 5

5:00 pm

U. of A. Campus
Sierra Vista

"The mission of the Cochise County Master Gardeners is to support the University of Arizona Cooperative Extension by providing to the citizens of the County research-based horticultural information appropriate for County environments about gardening, food production, landscaping, and environmental stewardship."

➤ If you are interested in companion planting and would like more information, the bulletin *Companion Planting—Some crops naturally go together* is available from the Extension Offices.



Late Breaking News

TO DRIP OR NOT TO DRIP?

**Master Gardener De Lewis
and
Extension Agent Rob Call
will attempt to answer that question
when they present a class on the
fundamentals of**

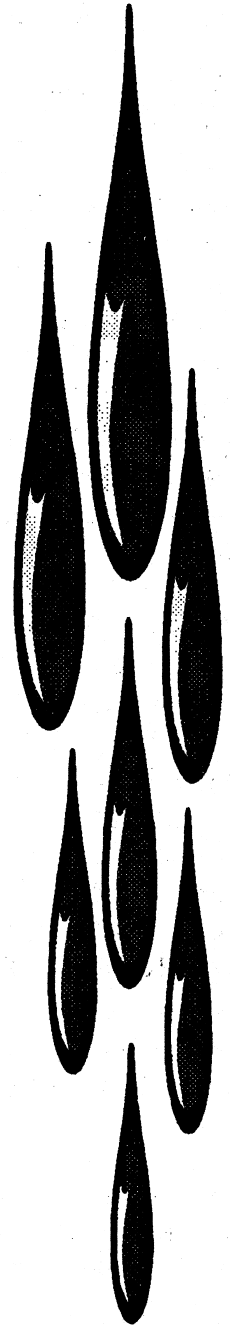
- ◆ design
- ◆ construction
- ◆ and maintenance
of irrigation systems

Wednesday, May 22

6:00 pm

U. of A. Campus, Sierra Vista

**This class is for anyone interested in putting in their
own drip irrigation system and best of all, it's free!**



A Transplanted Gardener . . .

Since my last book review (MG Newsletter Oct 95) I have discovered more wonderful books I wish to share with you.

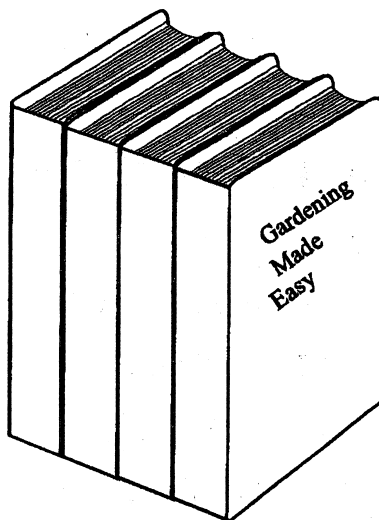
Growing Desert Plants From Windowsill to Garden, Theodore B. Hodoba, Red Crane Books, 1995. If you are interested in growing desert plants from seed or by propagation, then check this one out. Seven chapters and two appendixes that include places to visit for viewing southwestern plants, mail-order sources for seeds and plants and beautiful line drawings.

A Full Life in a Small Place and other essays from a desert garden, Janice Emily Bowers, The University of Arizona Press, 1993. This summer when it's too hot to work in the garden, curl up next to the swamp box with this wonderful book. Janice, who lives in Tucson, wrote 16 essays about her garden that will make you laugh, cry, and perhaps change the way you look at your garden and the world.

Insects of the Southwest, Floyd Werner, Ph.D. and Carl Olson, M.S., Fisher Books, 1994. Eight chapters of creepy insects. Great drawings and no nonsense text tell you everything you want to know (or not want to know) about southwest insects.

I found this gem in the children's book section in a local grocery store.

Gardening Success With Difficult Soils, Scott Ogden, Taylor Publishing Company, 1992. Everything you need to know if you have limestone, alkaline clay, or caliche soils. (That means everybody should already have this book!) Highlight is the list of heat/drought tolerant plants that LOVE these soils and tough conditions. (In-depth book review can be found in the Nov 93 MG Newsletter.)



Plants for Natural Gardens and Natural by Design, Judith Phillips, Museum of New Mexico Press, 1995. You can purchase these two books separately or as a beautifully boxed companion set. I recommend the boxed set. *Plants for Natural Gardens* showcases over 180 plants native to the high desert. Highlight is the propagation technique for each plant. *Natural by Design*

teaches the principles of design, planting, and maintenance. Gorgeous pictures.

Drip Irrigation for Every Landscape and All Climates, Robert Kourik, Metamorphic Press, 1992. I really like this book. Straight talk (no technical jargon!) on how to plan, install, and maintain a drip irrigation system. Wonderful line drawings and well written for the novice or expert, this book made it an enjoyable journey to setting up my first drip irrigation project.

Introduction to Permaculture, Bill Mollison, Tagari Publications, 1991. I love this book. Permaculture was first coined in the 70's by Bill. It involves using native or well-adapted plants native to your area and combines natural, xeriscape, and edible landscaping (including animals) so the site is self-sustaining to itself and its inhabitants. Great illustrations.

Cheri Melton
Master Gardener/Staff Writer

May Reminders

- ✓ Deep Water
- ✓ Plant warm season crops
- ✓ Check tree ties
- ✓ Control pests
- ✓ Control weeds

(*Controlling Weeds* - a bulletin available from the Cooperative Extension)

The Agent's Observations

QUESTION: I have elm trees that have beetles that become quite a pest. They eat the leaves. How can I get rid of them?

ANSWER: A sure way to get rid of elm leaf beetles is to cut down your tree (s) and those of your neighbor's! The larva of the beetles are eating the leaves so you must get rid of them. You can spray *Bacillus thuringiensis* or B.T., the San Diego strain. This product is sold under several trade names and is an organic insecticide that kills insect larva only and is not harmful to other insects or animals. B.T. is a natural occurring soil bacteria that must be sprayed on the leaves and then the treated leaves eaten by the larva. B.T. is washed off by rain and must be re-applied. Another solution is to spray a 2 foot band of Sevin insecticide around the tree trunk 6 to 8 feet above the ground. The elm leaf beetle larva travel down the tree trunk to pupate on the lower trunk or near the soil line. Crossing the Sevin strip will kill the larva and over time reduce the insect population according to University of California entomologists. This treatment will not destroy adults so if there are a lot of elm trees in your neighborhood other elm leaf beetles will fly to your trees and lay eggs. However, these treatments can significantly reduce larval populations and damage to tree leaves.

QUESTION: I am confused about fertilizers. What do the numbers on the bag mean? What

are the differences between organic and chemical fertilizers?

ANSWER: By law 3 numbers are required on a fertilizer bag. These are the percentage by weight of nitrogen (N), phosphorus (P) and potassium (K) or N-P-K in that order. Therefore, a bag of ammonium phosphate is marked 16-20-0 or 16% N, 20% P, and 0% K. The N is actual total N no matter what the form. P is really the percentage of P₂O₅ and K is really percentage of K₂O. (A small side-note—to get the actual amount of P you must multiply the number on the bag by 43% and by 83% to get the actual amount of K. These percentages are derived by taking the atomic weight of the element in question and dividing by the atomic weight of the molecule that the element is in. There have been efforts to revise the current labeling of fertilizers so that only the percentage of P and K appear, but these efforts thus far have ended in failure.) Our soils need N for normal plant growth. This is because it leaches from the root zone. Plants absorb most of their N in the NH₄⁺ ammonium and NO₃⁻ nitrate. These are both inorganic molecules. Generally plants use nitrate form over the ammonium form. Ammonium is converted to N in the soil by aerobic bacteria and some fungi, therefore cool, wet soils have less active bacteria and will yield less nitrate nitrogen. Nitrate forms of nitrogen are taken up by plants directly and is better used in cool, moist soils. Many nitrogen based fertilizers are made by a process which uses atmospheric nitrogen, the air we breathe is about 78% nitrogen and natural gas or methane under high pressure and heat. Organic forms of nitrogen must be

mineralized, that is converted into inorganic nitrogen by soil microorganisms for plant use. Also the carbonaceous material of the organic matter is broken down into humus by soil organisms and use N as an energy source. Organic sources of nitrogen include blood meal which is usually around 15% nitrogen. Our desert soils are also low in native phosphorus and it should be added at planting time. Phosphorus binds with the soil and does not leach or cannot be "melted" into the soil with water like nitrogen. There are several forms of phosphorus, many being produced by treating phosphate rock with an acid like phosphoric acid. This yields triple super phosphate or 0-45-0 on the fertilizer bag and can be neutralized with ammonia to make ammonium phosphate and liquid fertilizers. Organic forms of phosphorus are available with bone meal, 0-12-0 being the most common. Potassium is not needed usually in our desert soils. There are many fertilizers on the market which have other nutrients for plant growth. Higher priced fertilizers have some of these nutrients added and increase the cost. Organic based fertilizers like manures and composts have lower plant nutrient levels but add organic matter to our soils and are more beneficial in this regard than chemically based fertilizers. However, the cost and high amounts needed of organic fertilizers for normal plant growth are very high when compared to bagged chemical fertilizers.

Robert E. Call
Extension Agent, Horticulture

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U.S. DEPARTMENT OF AGRICULTURE
THE UNIVERSITY OF ARIZONA
TUCSON, ARIZONA 85721**

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Garden Tip Number 2,845

We like to recycle things around our house—aluminum cans, newspapers, snow shovels . . .

“Snow shovels,” you ask?

Funny you should pick up on that. Of course I recycle snow shovels. After all, we certainly don’t want our local landfills to be over flowing with them, do we? And with all the refugees fleeing the snowy north country for sunny Sierra Vista, it’s getting to be quite a problem.

Actually, I found a perfectly serviceable snow shovel for a quarter in a local consignment

store and I couldn’t resist the bargain. Not that I am anticipating a bad winter, you understand, but it never hurts to be prepared. In the meantime, I look at it more like a very large dust pan with a long handle than a tool for clearing ice and snow from the driveway. It works great for getting those piles of weeds and leaves from the ground into a garbage can where they can be hauled off to the compost pile.

Happy shoveling.

*Gary Gruenhagen
Master Gardener*