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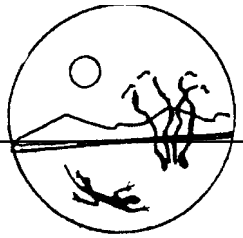
High on the Desert

Cochise County Master Gardener

Newsletter



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

Cochise County Master Gardener's Web Site

This month I am going to step on the toes of fellow Master Gardener, Gary Gruenhagen, our resident "Virtual Gardener," to tell you about this neat little web site debuting on the internet this month—the Cochise County Master Gardeners Web Site!

As you may know by now, the Cochise County Master Gardeners support The University of Arizona Cooperative Extension Master Gardener Program by providing to citizens research-based horticultural information appropriate for Cochise County environments about gardening, food production, landscaping, and environmental stewardship.

The Cochise County Master Gardeners supports this mission by answering gardening questions received at the Cooperative Extension Office and through two sponsored events held each year, the High Desert Garden Fair and the *High on the Desert* High Desert Gardening & Landscaping Conference. We hope that our new web site will be an asset to our mission!

The site is broken into six sections: *About the Cochise County Master Gardeners* talks about what the Master Gardener Program is and how you can become a Master Gardener. In the *High on the Desert Newsletter* section you can view the newsletter in all its glory with enhanced colors and graphics. Want to know what kind of gardening related things to do in Cochise County? Check out the *High Desert Events, Seminars, & Workshops*. You can see the latest news on what's happening for the High Desert Gardening & Landscaping Conference 2000 and in January registration and sponsorship forms will be available on-line. The page *High Desert Gardening* is chock full of gardening information. In addition to 19 (and budding—pun intended!) garden topics to choose from, you can find the feature articles from the Cochise County Master Gardeners monthly gardening column published in the Sierra Vista Herald Newspaper. Coming soon to this page is *Frequently Asked Gardening Questions* and starting January 2000 a "Monthly Garden Calendar" which will provide the gardener with information on what do to for each month of the year in the High Desert. The *Garden Giftshop* is a good browsing place to purchase garden Christmas gifts, and finally *Links & Sources* provides links to other sites and sources for plants, seeds, gifts, supplies, garden books, and other related garden stuff!

You may also sign up on-line to request the newsletter, sign up for the next Master Gardener class, or to receive free garden publications!

You find this treasure trove of information at :

www.ag.arizona.edu/cochise/ mg/

Cheri Melton,
Master Gardener

Thanks

Cheri Melton for creating the web site! It's terrific!!!

Cochise County Cooperative Extension

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What to do . . . November

The bug that wouldn't leave: This month you are probably having more trouble with bugs in your house than in your garden. However, aphids are one of the few garden pests that we never seem to be rid of. Aphids will find a sheltered plant in your garden and continue to feed and reproduce throughout the winter. When the weather warms again, they will be ready to launch an all out attack on your garden's new growth. How do you stop them? Seek them out in the sheltered areas of your gardens with an insecticidal soap spray.

To wrap or not to wrap: There has been a lot of tree planting activity this past year and many young trees are facing their first winter exposed to the elements. We now have to decide whether to wrap the tender trunks of our new trees. Wrapping doesn't hurt a young tree and it does provide some extra support in our winter winds. The real reason to wrap tree trunks is to protect them from weather variations in the spring months. Some trees are vulnerable to early sap flow during warm winters or early springs. The sap then freezes when Old Man Winter returns for one last hurrah. The damage (splits or soft sunken areas on the trunk) usually appears on the southwest side of the tree where the sun is most concentrated. Painting a tree trunk with white paint or wrapping it with white tree wrap reflects some of the heat off of the tree's trunk and lessens the likelihood of early sap flow and "southwest injury." So, do we wrap now or later? If you have a tree that is marginal for this area, that had southwest injury in the past, or that is newly planted go ahead and wrap it now. By the way, wrapping a tree trunk is often more effective at preventing "southwest injury" than painting it.

Good time for a drip: Now is a good time to install that drip system you have talking about for the past few months. There is a lull in gardening chores, the weather is great for working in the garden, and you will have six months to tinker with it before the dry and dusty June days put it to the test. Many of the more recent garden books have sections dedicated to drip irrigation and the Cooperative Extension has several pamphlets that can help you design your system.

Out with the old; in with the new: Though this isn't always the best advice, it is a smart practice when it comes to mulch. In the spring we advised you to rake up the winter mulch and put down fresh mulch for the summer months. Now we are offering the same advice again and with the same aim—to remove as many of the eggs or larvae that will produce next year's insects that we can. Rake up what's left of the top layer of your summer mulch and bag, burn, or compost it. Work the finely broken down lower layer into the top several inches of your soil and add a layer of fresh mulch (use ground bark, wood chips, straw, grass clippings, leaves, compost, even shredded black and white newsprint). Apply a layer 1 to 2 inches thick for fine mulches, 2 to 4 inches for coarser mulches.

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High on the Desert

The Cochise County Master Gardeners Association (CCMGA) is awarding up to five full scholarships to the 2000 High Desert Gardening & Landscaping Conference to be held at the Lakeside Activity Centre located on Ft. Huachuca, AZ, on February 17 and 18, 2000. Applicants are invited to submit an essay on one of the following topics:

- Gardening for food production
- Landscaping with native plants
- Environmental stewardship

Essays must meet the following criteria:

1. 750 to 1000 words in length.
2. Double spaced and typed on plain bond paper.
3. Represent original scholarship and be suitable for publication. All references and authorities cited must be properly attributed.
4. Entries must be accompanied by an official cover sheet obtainable from the Cooperative Extension Office at the University of Arizona South campus.
5. Entries must be received at the Cooperative Extension Office at the University of Arizona South campus not later than close of business on January 14, 2000.

Entries will be judged by the Cochise County Horticultural Extension Agent and a committee of Master Gardeners appointed by the President of CCMGA and the names of awardees announced not later than January 28, 2000.

Winter herb gardens: Just as there are cool season vegetables, there are cool season herbs. With all the cooking that the winter holidays bring, a planting of parsley, mint, cilantro, chives, sage, thyme, oregano, marjoram, and rosemary is a welcome addition in any cook's garden. Winter herbs like day temperatures in the 60's and 70's F. and will often tolerate night temperatures in the low 40's. They do need good drainage, lots of room to grow, and plenty of winter sunshine. Don't try growing them from seed though—it is slow at best. Instead, purchase starter plants from nurseries or ask friend for clumps or cuttings.

It can't be winter yet—I've still got green tomatoes: You can extend the life of your tomato plants through November by using frost protection strategies. Even though a light night frost won't kill the plants, it will damage the fruit, so it is critical to protect the plants as much as possible. If an early frost finds you and your tomato plants unprepared, don't despair. Pull up the tomato plant and hang it stem up (roots down) in a place where the temperature will stay between 55° and 72° F. The tomatoes will continue to ripen on the vine even after the plant has wilted. If all else fails, there is always green tomato chutney!

Jackie Dillon-Fast
former Cochise County Master Gardener
(Reprinted from the Cochise County Master Gardener Newsletter, Nov. 1990)

Robert E. Call
Extension Agent, Horticulture

Carolyn Gruenhagen
Editor

Plant Now to be WaterWise and Energy Smart

Did you know that autumn is an ideal time to plant here in the high desert? Most folks get the planting or gardening "bug" in the spring and put in all their shrubs, trees, and flowering plants right before the weather here gets extremely hot and dry. Spring is actually the worst time of year to establish plants in Arizona! They will require a lot of water and spend all their energy trying to survive the heat and dryness instead of putting energy into expanding their root system. Try planting now when the weather is cooler. This will allow your plants the time and energy they need to establish good roots before next spring and summer. A good root system will help them get through the hot, dry months of May and June and during monsoon season you will see them really take off!

Another reason to plant in the fall, for deciduous trees especially, is that many plants go dormant in the fall and remain that way throughout the winter. While in a dormant state, they are not expending energy to try and put on leaves or flowers. Planting a plant that is trying to put on leaves or flowers can "stress it out."

Planting at this time of year can help save water because the evapo-transpiration rates are not as high as they are during the spring and summer. HOWEVER, PLANTS WILL STILL REQUIRE SOME WATER TO HELP THEM ESTABLISH ROOTS. Use a soil probe, which can be purchased at the Cochise County Master Gardener Office, to help you fine tune your watering schedule.

Remember!!! We will experience freezing and below freezing temperatures here during the winter. Do your research and make sure that the wonderful drought tolerant plants you choose are also frost tolerant.

Ginger Maxey
Master Gardener Associate/Energy & Water Conservation Educator, Ft. Huachuca

HERE IT COMES!

High on the Desert

High Desert Gardening & Landscaping Conference
February 17 & 18, 2000
Lakeside Activity Centre
Ft. Huachuca, AZ

More details next month!

Cuttings 'N' Clippings

➢ Cochise County Master Gardeners Association meets November 3, 5:00 pm at the Sierra Vista Library. Guest speaker is Cecile Lumer, *Plant Identification & How to Build a Herbarium*.

Proper Watering

Nothing will challenge the gardener in the High Desert more than mastering the concept of proper watering. Most of the sick plants brought to me for diagnosis are generally suffering from improper watering. It is not always a question of too little but can be too much water, watering improperly, not adjusting watering to fit the plant and the season, and failing to adjust watering to combat excess salinity in our ground water.

How sad to see the charred remains of a water starved plant, ofttimes, a drought tolerant one. Why do people assume that just because a plant is labeled "drought tolerant" it will require no water at all. Part of me wants to stake them out in the broiling sun and when they ask for water reply, "Oh no dear, I gave you a cup last Tuesday!" All flora requires water and has evolved to take advantage of the climate and topography to which it is native. Failure to provide water amounts that are equivalent in nature, will cause the plant to die. You can provide sufficient amounts of water to your native plants by either giving appropriate amounts of supplemental water at critical times or by modifying the area around the plant to take advantage of available rainfall. There IS a reason why you see plants spaced out across the high desert and why there is more flora in some locations versus others.

Sufficient watering of non-adaptive plants is even more critical. Insist on planting a water guzzling favorite plant from back east and then be unwilling or incapable of supplying its high water requirements is to, in effect, sign its death warrant. Plant a *Salix balylonica* or *Populus fremontii* then be prepared to watch the dial on your water meter spin. Always ask how much water a particular plant requires BEFORE you purchase it, slap it in a hole, and then proceed to kill it through water deprivation. If a plant requires "regular water" and you plan on spending the entire summer at Auntie Maude's digs in the Caribbean, its not for you.

Just as deadly to plants as underwatering is overwatering. DO NOT plant drought tolerant plants in overly enriched organic soil mixes, in soil depressions, or put them on a drip system with other non-drought tolerant plants. Cacti, yuccas, agaves, *etc.* are very intolerant of wet feet. I have yet to hear of a swamp cactus—so benign neglect is more appropriate. Even water thirsty plants can succumb in the high desert to the evils of overwater. This is especially true if when attempting to dig a hole for your new plant with the desert sun beating down and sparks shooting in the air with each thrust of the caliche bar, you finally attain sufficient space to accommodate the plant and in she goes. Let's stop for a moment and access this situation. If it took you hours to dig that little hole, how well do you think water will perk through that soil? Failure to provide good drainage to plants is deadly. Plants need not only water for survival but also oxygen. Water choked plants are unable to get oxygen through their root systems. Add to this problem the dreaded words, "root rot," and we have a scenario that will cause even the veteran desert rat to take flight. Know your plants' water requirements and give it enough to maintain good plant health and then no more.

Knowing how to water is just as important as when to water. DO NOT spritz your plants. Most new gardeners in the high desert water too often and too little. Water your garden for five minutes with a waterwand and then go back with a spade and see how deeply the water has penetrated in the soil and you will discover it probably only wet

the surface. When you water you need to soak the soil to the appropriate depth. Most perennial and annuals will be okay if you water to a depth of one foot; shrubs to two feet; and trees to three to four feet. You cannot water your willow tree with once a day spritzes. It helps to group plants with similar water requirements so that you are aren't drowning one plant or starving another.

There is no hard and fast rule of how often and how much to water. Different soils require different techniques. Sandy soils will require more frequent watering than clay or poor draining soils. Hot dry winds increase the water requirements of exposed plants significantly. Learn to read your plants and provide them with the amount of water required by their microclimate.

Excess salinity of the ground water can severely damage plants. This is especially the case when the concentration of dissolved mineral salts in the water increases due to drought conditions. Plants that re-

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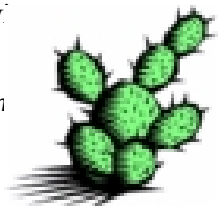
quire supplemental water during the growing season should receive a double or triple dose of water once a month to insure that salt does not accumulate in their root zone.

I know that this is a rather simplistic look at watering in the desert. The WaterWise office at the Cooperative Extension Office has much more detailed information on proper watering and designing your landscape to minimize water requirements and maximize the effectiveness of your use of water. Be prepared to unlearn many of the things that served you well other times, other places. Learn to live with the desert and not fight it as it will always w

John Phillips
Master Garden



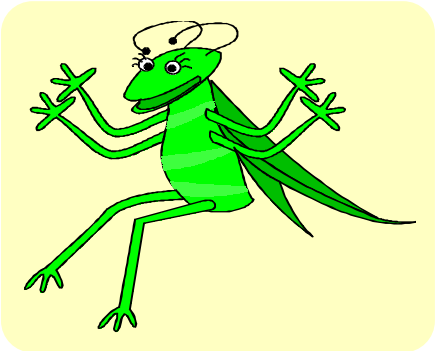
The Agent's Observations

Q I have several desert brooms (*Baccharis sarothroides*) that are all over my property and I want to get rid of them. How can I do this and not have them come back from the roots?

A Desert brooms are quite prolific. Removing them will keep them from multiplying from seed. However, your neighbors might have their desert broom seeds blow on to your property! A good method of controlling woody plants including desert broom, Siberian elms, mesquite, and others is by using the herbicide glyphosate. This herbicide is marketed most widely as Roundup®.

Control: Prepare a small container and place some concentrated glyphosate in it. You must purchase 18 or 41% concentrate Roundup®, not the diluted 0.96%, ready-to-use products. Cut down or prune back the plant to be removed close to the ground. Leave a stump if you plan on pulling it out later when the roots have died. With a paint brush or sponge apply the concentrated Roundup® to the cut surface immediately after cutting down the plant. Do not wait or the plant will heal over and decrease the effectiveness of the herbicide. If regrowth occurs prune it back and paint again. Best results are obtained when the plant is actively growing. This treatment is on the Roundup® label under "Cut Stump Treatment." **Always read the label of pesticides and use them accordingly.**

Source: *Crop Protection Reference 15th Edition* 1999. C & P Press, New York. Page 1479.



Q I have a lot of grasshoppers in my yard. They are eating everything! How can I control them?

A In Cochise County we have several species of grasshoppers, some are very colorful and grow quite large. Grasshoppers emerge in the spring from eggs laid last year. Grasshoppers hatch as miniature adults and molt 5 or 6 times during a period of 40 to 60 days. The young feed in the immediate vicinity and then move on to "greener pastures" as food sources become depleted. Adults begin laying eggs shortly after they mature. Eggs are laid in the ground in pods that contain 15 to 75 eggs. A female can lay a total of 200 to 400 eggs during several weeks. Hatching rate depends on soil temperature and moisture and may continue for 3 months. Some species have more than one generation per year. Grasshoppers feed on grasses and other plants. When populations increase they will feed on nearly any kind of vegetation including bark and leaves of deciduous trees. They are also cannibalistic. Adults continue to feed until cold weather kills them. Natural weather cycles cause fluctuations in populations. Mild winters and warm, dry springs increase hopper populations. Cold, wet weather cause slow development and favor grasshopper diseases. Cool summers and early falls delay maturity and demcrease the egg laying period.

Control: If desert surrounds your property it can become very difficult to control grasshoppers because of large populations that can become migratory. Disturbing egg pods in the soil by late winter tilling or plowing will expose egg pods, decreasing their viability.

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Young small hoppers are easier to control than adults. "Picking and squashing" is a time consuming but effective control measure. Anyone tried a tennis or badminton racket?! Several chemicals insecticides will control grasshoppers as well as the abrasive nature of diatomaceous earth. Most pesticides will affect grasshoppers. Contact your local nursery for a suitable product. Remember that large hopper are harder to destroy than smaller ones. Covering damaged plants with shade cloth, floating row cover, window screen, or other materials can decrease feeding damage. *Nosema locustae* is a naturally occurring disease organism of grasshoppers. Bran and sweeteners are added to *Nosema* to attract the hoppers. Grasshopper are canni- balistic and infection spreads as healthy hoppers eat sick or dead relatives. Also the females pass this disease on to future generations through laid eggs. *Nosema* can destroy up to 50% of the grasshopper populations per year. Conventional pesticides can be immediate but short term. This is a living organism and must be stored in the refrigerator and has a limited shelf life. A very effective control strategy is a very cold winter. Contact your local nursery, farm/ ranch supply store, or garden catalog for this product. **Always read the label of pesticides and use them accordingly.**

Source: *Insect Pests of Farm, Garden, and Orchard* 1987. R.H. Davidson and W.F. Lyon. pp. 127-129.

Robert E. Call
Extension Agent, Horticulture

The Virtual Gardener will be back in January to continue his look at sustainable landscape design.

Gardening Tip #6732

How many times have you found yourself having to water a plant that is not on your current drip system but still needs a little supplementary water? Have I got a tip for you!

You can make a portable drip system that can easily be transported to any location in your yard using a one gallon plastic milk jug, a drip emitter, and a piece of spaghetti tubing. Poke the emitter into the bottom of the jug (I use a 2 gph emitter and pre-puncture the jug to make the emitter go in easier), add a short piece of spaghetti tubing (24 inches should do the trick) to the emitter, and you're done. To water a plant, elevate the jug on something (I find a 5 gal. nursery pot turned upside down works great), place the end of the spaghetti tubing next to the plant, and fill the jug with water.

Gary A. Gruenhagen, Master Gardener
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