



High on the Desert Cochise County Master Gardener Newsletter

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

Happy, Healthy Houseplants

This month I am writing about repotting houseplants. Spring is the perfect time to do this. Also, when buying a new plant it is something to consider. In my experience, most plants have already outgrown their container when they get to the shop, and it is good practice to repot in a slightly bigger container. Most plants now are grown in soilless mediums. Once that has dried out it gets hard and cannot retain water. I like to replace that with the kind of potting mix my plant requires.

It is very important to water the plant the day before repotting. When transplanting, knock the plant out of its container by holding the stem and soil surface with one hand while turning the pot over with the other hand. Knock the rim of the pot against a hard surface; this should loosen the root ball enough so that it comes out in one piece. If the root ball does not move, take a knife and stick it be-

tween the root ball and the pot and run it around inside several times. Now the plant should come out easily. Never pull on the stem because it might pull off the roots.

Always use a clean pot, just a little bit larger; no more than one or two inches larger. Never pot a small plant in a much larger container in hopes the plant will grow into its new home.

Small plants in large containers are either under or over watered. To keep the soil from spilling out the drainage hole I use a piece of landscaping cloth, screen, or a paper coffee filter. Then I use pieces of an old clay pot or pebbles to help with drainage. Make sure that the clay chips do not plug up the hole; they should be like a bridge. For large pots I use "packing popcorn," that is very light. Fill new soil into the chosen container to the point where when the plant is in place the

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Cochise County Cooperative Extension

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

1140 N. Colombo, Sierra Vista, AZ 85635

(520) 458-8278, Ext. 2141

450 Haskell, Willcox, AZ 85643

(520) 384-3594

The Agent's Observations

Question: I have some pyracantha plants that were planted last year to form a hedge. There is some die back of some branches. These branches have several concentric rings of bark removed on them also. I know that we have twig girdlers in mesquite trees. Do these or other insects girdle pyracantha branches?

Answer: While it is true that mesquite twig girdlers are found where mesquite trees grow they do not girdle pyracantha shrubs or other species usually. A sample of the branches was collected and viewed under a dissecting scope. The concentric rings of missing bark were caused by the bark drying out and shrinking and pulling apart. There was no insect damage on the branches. The die back was caused by lack of water.

Upon further questioning, the homeowner reported that one plant was growing well. It was irrigated by a broken drip tube and was receiving adequate water. The other plants need more water so they will not dry out and cause the concentric rings to form. Remember that roots dry out and will die. If winter moisture is limited, water plants every four to six weeks.

*Robert E. Call
Extension Agent, Horticulture*

High on the Desert

Our 10th Annual High Desert Gardening & Landscaping Conference has come and gone. From all reports everyone had a great time and learned so much. It is with great pleasure that I say, "Thanks! Job well done!" to all the dedicated volunteers of the Cochise County Master Gardeners Association!

Special thanks to our sponsor:
Desert Trees Nursery, Tucson.

Thanks also to the following:

Program Advertisers:

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Exhibitors:

Azida, Diamond JK Nursery, Kazzam Nature Center, Southwest Desert Growers, and U of A South Bookstore.

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Speakers:

A great big THANK YOU! We couldn't have done it without you!

Committee chairpersons and CCMGA Members who gave so much of their time, energy, and talents to make it all work:

Rob Call, Extension Agent and Program Chair, Carole Beauchamp, Cado Daily, **Shelley Davis, Publicity Chair**, Deke & Peggy Descoteaux, **Gwin Garcia, Sponsorship Chair**, Anita Gollwitzer, **Carolyn Gruenhagen, Conference Coordinator**, **Gary Gruenhagen, Registration Chair**, Anne Hughes, Diane Kolenosky, Diane Levine, De Lewis, **Cheri Melton, MC, Charlie Narburgh, Facilities Chair**, Jim Shafer, Bob Sisney, **Helen Sisney, Treasurer**, Pat Walton, and the Cooperative Extension Staffs in Sierra Vista and Willcox.

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

*Carolyn Gruenhagen
2003 Conference Coordinator*

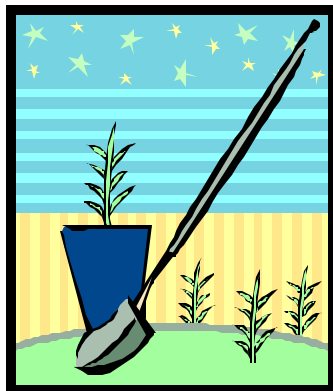
New !!!
High on the Desert
T-shirts
available at the
Sierra Vista Cooperative
Extension Office.



Robert E. Call

Robert E. Call
Extension Agent, Horticulture

Carolyn Gruenhagen
Editor



FOR THE GARDEN OF YOUR DAILY LIVING

Plant three rows of peas:

1. Peace of mind
2. Peace of heart
3. Peace of soul

Plant four rows of squash:

1. Squash gossip
2. Squash indifference
3. Squash grumbling
4. Squash selfishness

Plant four rows of lettuce:

1. Lettuce be faithful
2. Lettuce be kind
3. Lettuce be patient
4. Lettuce really love one another

No garden is without turnips:

1. Turnip for meetings
2. Turnip for service
3. Turnip to help one another

To conclude our garden we must have thyme:

1. Thyme for each other
2. Thyme for family
3. Thyme for friends

Water freely with patience and cultivate with love.

—Unknown

(Houseplants continued from page 1)

top reaches about half an inch below the rim of the pot. Tease the roots out and cut any circling ones, center the plant, and fill in the sides. Water well, using B1 for good root growth and do not fertilize for a few weeks.

When the plant is out of the pot, always make sure the roots do not dry out, which can happen quickly in our dry climate. Place a wet paper towel around the root ball and keep the plant out of the sun and the drying winds.

After repotting finish off your work with a fresh layer of mulch. Large plants in big containers are difficult to repot. In that case top dressing will be in order. Remove about three inches of soil and replace with new soil. Water well using B1 and do not fertilize for some weeks.

If the plant has gotten too big for the old container but you want to continue to use the same pot, you can root prune. That means, cutting back the roots to fit the container. Keep in mind that you also should take off some of the top foliage to make up for it.

Next month I will write about the potting soil. Have fun with your houseplants.

Angel Rutherford, Master Gardener



April Is "Water Awareness Month!"

Cuttings 'N' Clippings

* The next regular meeting of Cochise County Master Gardeners Association (CCMGA) is March 5 at the new location: UAS Language Building, Room 212, 5:00—7:00 p.m.

* The April 5, 2003 *Water Wise* workshop is: ***Do's and Don'ts of Drip Irrigation*** from 9–11.00 a.m. with Southwest Desert Images Landscapes. The free workshop takes place at the University of Arizona South Campus, 1140 N. Colombo, Sierra Vista.

* The Bisbee Farmers Market will open its second season on Saturday, May 3 from 8:00 a.m. until noon at the Vista Park in the Warren section of Bisbee. For information please contact Valerie McCaffrey, market manager at (520) 432-7066.

* The Bisbee Bloomers will be holding their Second Annual Old Bisbee Gardens in Bedrock Tour on May 10 from 10:00 a.m.—4:00 p.m. Tickets are available at the Visitors Center at 31 Subway St. Bisbee or for more information call 432-1418. Eight of Bisbee's finest gardens will be on display during the self-guided tour.

The Virtual Gardener—Ergonomics for Gardeners

One of the most popular presentations at the 2003 High Desert Gardening and Landscaping was a class entitled *Ergonomics for Gardeners* presented by Wayne Frahlegh and Vernon Jex, two physical therapists from the Sierra Vista Regional Health Center. In their class, Wayne and Vernon described things you can do to reduce or eliminate some of the risks associated with gardening.

Because this is such an important topic, I decided to see what I might find out about it on the Web and share the results with you this month. A Google™ search using the words “ergonomics” and “gardening” generated almost 10,000 hits, so I had plenty of material to work with.

First, let’s define that strange term *ergonomics*. You may not even find it in your dictionary. I first ran across the term in a human factors engineering course I took many years ago. Basically, ergonomics is the science of designing

tools, equipment, and working environments that can be used efficiently without endangering their health or safety of the people who use them. So what are some of the risks associated with gardening and what can we do to reduce them?

Many of the activities we perform in the garden require us to assume unusual postures (sometimes for extended periods), make repetitive movements, or exert greater than normal forces. These place stresses on our bones and muscles that can lead to injury.

I’m sure all of us have caused ourselves some back pain or discomfort by attempting to lift something heavy from an awkward position that puts us in a position of poor mechanical advantage. Being a smart gardener means following the advice to lift with our legs and not with our backs, avoiding bending and twisting at the same time, and not holding out of balance positions for long periods of time. Design the garden beds so you don’t have to reach long distances to reach a weed or plant. Design trellises and other elevated structures so you can work on them at shoulder height rather than overhead. Choose shovels and other tools you use while standing that have long enough handles so that you don’t have to bend over to use them. And if you have to assume an awkward position to perform some task, take a break every few minutes to give your muscles a chance to relax.

How many of you have ended up with tendonitis or a similar condition from performing a repetitive motion for long periods of time? For example, making a large number of pruning cuts can leave your wrist and hand sore for weeks if you use the wrong hand position, try to exert too much force, or work too long without a break. Hand position is particularly important. Make sure your wrist and hand are in a neutral position (your hand in line with your forearm) when using hand pruners. Not only do you lose strength when your wrist is bent, but you can irritate the tendons in your wrist and be sore for a long period of time. If you’ve got a lot of cutting to do, take frequent breaks and let the muscles relax. Choose pruners with handles that do not open too wide for your grip and don’t try to cut branches that are too big around. Use a saw instead.

Most of us perform some maintenance on our garden tools. How many of us perform a little maintenance on our bodies to keep them tuned up for gardening? After a long winter spent watching HGTV and reading seed catalogs, our bodies tend to get a little out of shape for gardening. Try some exercises and stretches to strengthen and warm up those gardening muscles before rushing out to the yard shovel in hand. Wayne and Vernon suggested stretching exercises for shoulder,

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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

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Western Tree-Ring Record Suggests No Quick End to Current Drought, Scientists Say

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trunk, and leg muscles; lunging exercises to strengthen leg muscles and improve balance; and some simple exercises for the hand and wrist to improve flexibility. Unfortunately space precludes me from describing these exercises but you can find good descriptions of exercises online at a number of sites. Here are just a few:

Stretching exercises: <http://kirtland.cc.mi.us/~balbachl/stretch.htm>

Extensive discussion of physical therapy including descriptions of many exercises: <http://physicaltherapy.about.com/library/weekly/aa081501a.htm>

Joint Manual on Exercise and Aging from the National Institute on Aging and NASA. Also covers stretching, strengthening, and endurance exercises: http://weboflife.ksc.nasa.gov/exerciseandaging/chapter4_stretching.html

Some useful Web sites for ergonomics and gardening include:

General principles with a focus on tool design: <http://gardening.fiskars.com/tips.html?cat=ergonomics>

Article from the National Gardening Association: <http://www.nationalgardening.com/articles/scripts/articles.taf?id=125&kwd=ergonomics&Articlesstart=>

Article from Garden Gate Magazine: <http://www.gardengatemagazine.com/basics/g24easy.html>

Until next time, happy surfing!

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

As the warm ocean current called El Niño strengthened in the eastern Pacific Ocean this past summer, it raised hopes that a 5-year drought gripping the U.S. Southwest might break this spring with plentiful rains. But if the rains do materialize, they may offer only temporary respite according to new research. Scientists who have analyzed decades-long precipitation patterns in 750-year-long tree-ring chronologies from the central and southern Rocky Mountain states conclude that the region may be in for prolonged drought.

In the Feb. 11 issue of *Geophysical Research Letters*, scientists from the U.S. Geological Survey, the University of Wyoming and Middlebury College report that drought-sensitive trees in the central Rocky Mountain states (Colorado, Montana, Wyoming) and southern Rocky Mountain states (Arizona, New Mexico, Utah) show 40- to 70-year long moist and dry spells throughout this part of the continent.

Occasionally, these multiple-decadal patterns synchronize across the entire subcontinent, as they did during the mega-droughts of the late 1500s and the 1950s, the scientists said. "But in general, the multi-decadal precipitation regimes don't occur in predictable cycles, nor do they always even occur in phase across the region," said Julio Betancourt of the U.S. Geological Survey and the University of Arizona's Desert Laboratory, one of the authors of the paper.

Their results support the increasingly credible idea that regional climate is linked in complicated ways to changing ocean temperatures, Betancourt said. Complex interactions between changing tropical Pacific Ocean and northern Atlantic Ocean sea surface temperatures play pivotal roles in North American climate, he added. "A barrage of recent studies link decadal-scale climate variability to slow ocean processes," he said. "The Pacific Decadal Oscillation (PDO), or the shift in Pacific Ocean sea surface temperatures, and associated climate tend to vary on a 20-to-30-year 'cycle' with abrupt regimes shifts," Betancourt said. "For example, in 1946, the tropical Pacific went cold for a decade and the southwestern U.S. climate went dry, producing the 1950s drought. And in 1976, the tropical Pacific got warm, and the Southwest had a prolonged series of wet winters." When the tropical Pacific Ocean cooled and the north Atlantic Ocean warmed in the 1950s, much of North America was gripped by severe drought, Betancourt noted.

Betancourt and Thomas Swetnam of the UA Laboratory of Tree-Ring Research previously reported tree-ring evidence that the 1950s drought actually persisted from 1942 to 1972 in the southwestern United States, and was followed by an unusually warm

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and wet period after 1976. “A comparable shift in 1950s oceanic temperatures and continental drought began around 1998,” Betancourt said.

Opposing shifts in tropical Pacific and North Atlantic ocean temperatures likely foretell persistence of disastrous, multi-year droughts across the North American continent, he and his colleagues conclude. “In the current context of ocean climate, the current drought should give water and other resource managers in the Rockies and in the Southwest little cause for optimism,” he said. Authors of the *Geophysical Research Letters Paper, Patterns and Sources of Multi-decadal*

Oscillations in Drought-sensitive Tree-ring Records From the Central and Southern Rocky Mountains, are Stephen T. Gray of the University of Wyoming, Betancourt, Christopher Fastie of Middlebury College (Vermont) and Stephen T. Jackson, University of Wyoming. More information about this is available from the U.S. Geological Survey web site, <http://www.usgs.gov>

Contact Information Julio Betancourt Desert Laboratory—U.S.G.S. and UA 520-670-6821 ext.107, jlbetanc@usgs.gov

Lori Stiles

Conference Feedback

Wow! The 2003 High Desert Gardening & Landscaping Conference was the best ever according to the feedback we’ve received from the people who attended. If you were unable to attend this year, you missed a great experience.

Thanks to all for providing us with the feedback we need to make the conference better each year. We’re looking forward to seeing you again in 2004.

Gary A. Gruenhagen, Registration Chair

