



# High on the Desert Cochise County Master Gardener Newsletter

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

## The Virtual Gardener—Tomatoes From Seed

There's nothing quite as good as a juicy, ripe tomato picked directly from the garden. Did you know that of all the plants grown for food in home gardens tomatoes are the most widely planted? That reflects a vote of no confidence in the tasteless, over-engineered things we buy at the super market.

I plant tomatoes almost every year, and this year I want to try something different, growing them from seed. In the past I have always bought standard varieties in six-packs. This year I want to try some heirlooms. Heirloom tomato seeds can sometimes be found in garden shops and nurseries but you may have to order them from a seed catalog or online.

Most instructions recommend planting tomato seeds indoors about 6-8 weeks before the last frost so that the plants are ready to go in the ground when night time minimum temperatures outdoors remain above 55°F or so. According to the Western Regional Climate Center Web site

(<http://www.wrcc.dri.edu/summary/climsmaz.html>) the average last frost date for Sierra Vista is now March 23 but the daily minimum temperatures don't

average 55°F until May 18. If you live elsewhere, use the tables on this site to determine the dates for your area (see the August 2003 Virtual Gardener article on our Web site for details).

Plant the seeds about ¼ inch (some instructions recommend half that depth) deep in a commercial sterile seed-starting mix and keep them moist and warm (75-80°F). Because the seed-starting mixes are difficult to wet, it's a good idea to mix them with water and let them set overnight before planting. The soil should be about as damp as a wrung out sponge.

I find that a disposable aluminum cake pan with a plastic dome lid works well as a seed-starting flat for large numbers of seeds or styrofoam coffee cups for smaller numbers. Just remember to poke some holes in the bottom of the containers to let excess water drain out.

After the seeds have sprouted (about a week more or less), place the new plants where they get plenty of sunlight, warmth, and moisture but be careful not to cook them. The first leaves to develop are *seed leaves* called *cotyledons*. True

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## High on the Desert

The Cochise County Master Gardeners Association In conjunction with the University of Arizona Cooperative Extension thank the following for their support of the 16<sup>h</sup> Annual High Desert Gardening & Landscaping Conference:

### Special thanks to our sponsors

Deke and Peggy Decoteaux  
De and Ceci Lewis

### Exhibitors

Arizona Revegetation & Monitoring Co., Diamond JK Nursery, Friends of the San Pedro River, Inc., Lori Kovash Stalwart Designs, Mountain States Wholesale Nursery, Mountain View Koi Fish & Nursery, LLC, Oasis Rain Water Harvesting, University of Arizona South Bookstore, Wild Birds Unlimited

### Non-Profit/Non-Selling Exhibitors

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### Businesses and Organizations that made the registration gift bags possible

This year the gift bags were donated by **Friends for Change**, a non-profit group that makes bracelets and cell phone charms and sells them for \$5.00. With that \$5.00 they purchase reusable shopping bags and hand them out free of charge. AZ Nutrition Network, City of Sierra Vista, Cochise County Cooperative Extension, High Country Gardens, LE Cooke Co., Nature's Control, Oaks of the Wild West

### Program Advertisers

Angel Rutherford Nature Photography, Birdlegs Pottery & Yard Art, Butterfly Gardens, Inc., Clint's Haircuts, etc. Vicki Gilbert Farmers, Leaves in the Wind, Mountain View Koi Fish Nursery, Southwest Desert Images, LLC., The Bindery, Wild Birds Unlimited

### Speakers

Gordon Wardell, Ph.D., Liz Barta, B.S.N., DeForest Lewis, Russ Buhrow, Cado Daily, Cyndi Wilkins, John White, Rob Call, Randy Norton, Ph.D., Tom Wood, Gerald Jubb, Ph.D., Mary Irish, Jack Kelly, Alison Barrett, Wynn Anderson, Darcy Tessman, Elizabeth Davison, Richard Heerema, Ph.D., Kim McReynolds, Peter Gierlach

### The following businesses advertised the conference:

Ace Hardware, Buzz Bread, Cochise County Libraries, Ethel Berger Center, Home Depot, Lowe's, Mt. View News, Radio Stations K101, K10, KWCD, Sierra Vista Coop, Sierra Vista Herald, S.V. Visitors Center/Oscar Yrun, US Post Offices, Wild Birds Unlimited

### Committee chairpersons and CCMGA Members

Thanks to all the committee chairpersons and CCMGA members who gave so much of their time, energy, and talents to make our Conference successful: Cliff Blackburn, Donna Blackburn, **Rosemarie Burke, Conference Co-Coordinator & Publicity Chair**, **Jim Byrum, Facilities Chair**, **Rob Call, Extension Agent and Program Chair**, Dave Crandall, Felice Dayhoff, Bret Galloway, Terrie Gent, Carolyn Gruenhagen, **Gary Gruenhagen, Registration Chair**, **Lori Kovash, Sponsor Chair**, **Merrienne Lange, Gift Bag Chair**, De Lewis, Cheri Melton, Jan Orlando, Angel Rutherford, Madlyne Sandell, Doug Templeman, Eleanor Templeman, Woody Tucker, **Sarah Turan Conference Co-Coordinator**, and the Cooperative Extension Staff in Willcox and especially Joyce Williams in the Sierra Vista office. Special thanks to Jim Koweek, Janyce Knight, Guest Artist, and Jan Groth, Emcee!

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

## 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—458-8278, Ext 2139)
- ◆ Remove and replace winter mulches



*Robert E. Call*

Robert E. Call  
Extension Agent, Horticulture

Carolyn Gruenhagen  
Editor

## Attack of the Girdlers—Part 1

No, they are not terrorists, marauders or a rival gang. But they strike viciously all the same. You've seen them in September, when the nights turn nippy and there is otherwise a feeling of tranquility in the air after the fresh summer rains. Everything looks brilliant and green. Except the mesquites, that is. Why are some of the branches turning brown so early?

Then you notice odd strangulation incisions that encircle the ends of the smaller branches. So precise and deadly. What did that? *They* did it. You've just been attacked by the mesquite girdlers.

### Up Close and Personal

Part of a larger family known as longhorn beetles, there is a large variety of beetles which girdle. In the Southeast, there is a twig girdler that primarily strikes pecans and hickories. Another larger species in south Texas likes to attack huisache and mimosa trees. But the one we're interested in here is the mesquite girdler, or as it is otherwise known as on its police record, *Oncideres rhodosticta* (Bates). (Hmmm, Bates – as in the Bates Motel?)

The process begins after new adults emerge and start mating in late August through early October. The female chooses the small end of a branch, usually not much larger than the diameter of a pencil and about two feet from the tip. She then carefully uses the incisors on her mandible to chew away a nice clean 'V' cut encircling the entire twig or branch. This incision is just deep enough to remove the cambium, which supplies nourishment and water to the rest of the branch and its leaves, but not so

deep that the branch is weakened and quickly falls off.

After 'assassinating' the end of the branch with her girdling cut, the female then chews small holes above the girdle ring and deposits an egg in each, which she covers up with a protective secretion. The eggs hatch in about one week, at which point they burrow under the bark<sup>1</sup>. The end of the branch now dies off, and the larvae (going through various phases) feed on the dead wood. They then emerge at the end of the following summer to mate and begin the process all over again. There is some poetic justice, however, as other females will sometimes begin depositing eggs on the end of a branch being girdled by another female. Talk about outsourcing!

Mesquite girdlers do not hang around on mesquite branches after doing their dirty work, so you may have a difficult time spotting them. However, they are easy enough to notice flying, especially around dawn or dusk. Like all beetles, they are rather clumsy in flight and look somewhat like heavily laden dirigibles trying desperately to stay in the air. Small masses of them can sometimes be seen on the ground as they prepare for mating.

Part 2 next month.

*Bret Galloway, Master Gardener*  
(Note: Scholarship winner to the 2009 High Desert Gardening & Landscaping Conference.)

<sup>1</sup>Rice, ME. "Branch girdling and oviposition biology of *Oncideres pustulatus* (Coleoptera: Cerambycidae) on *Acacia farnesiana*", Annals of the Entomological Society of America [ANN. ENTOMOL. SOC. AM.], Vol. 82, no. 2, pp. 181-186. 1989. (Abstract only.)



*Mesquite girdler on branch.*

You'll have no trouble identifying them from their antennae, which are twice as long their bodies for males and half that for females. They are rather small, about ¾ inch in body length, and charcoal gray-black in color. Upon closer inspection, you'll notice small, faint orange dots on its back.

## Cuttings 'N' Clippings

✧ The next CCMGA meeting is 5:00 p.m. Thursday, **March 5** at the University of Arizona South Campus Public Meeting Room. Dr. Mary Olsen, Extension Specialist in Plant Pathology, University of Arizona, will present a talk on *Problems and Pests of Agave, Aloe, Cactus, and Yucca*.

✧ Are you stumped on how to design a landscape? The free Water Wise presentation, *Landscape Design*, presented by Cyndi Wilkins, UA Cooperative Extension Water Wise Instructional Specialist, on **March 7** from 9:00—11:00 a.m. at the University of Arizona South Campus Public Meeting Room is for you!

✧ The 4<sup>th</sup> Annual Earth Day Celebration at the Sierra Vista Farmers Market will be held on Saturday, **April 18** from 9 a.m. to 2 p.m. in conjunction with the West End Block Party. Look for the Cochise County Master Gardeners!

## Cacti 101: Chapter 6—An Update, Review, and a Mystery

In Chapter 1 and 2 last October we discussed propagation of cacti from cuttings. As you will recall the author planted sixteen cuttings in his garden just before the 2008 monsoon season began. After four months nine of the sixteen were growing well with two or more new pads. Three more appeared healthy but had not shown any new growth and the final four were doing poorly. They have now been in the ground approximately eight months and we note some additional deterioration. Of the sixteen original cuttings only ten look likely to survive. Two cold spells this winter have not been well tolerated by these relatively young cacti. Even the healthy specimens look somewhat stressed. Despite good success with plantings in June 2006, Mother Nature has reminded the author he is not really in total control of his garden.

### A Brief Review of *Opuntia* to Date

Since this series began we have looked into *Opuntia ficus-indica*, *O. engelmannii* and several of its varieties, *O. santa-rita*, *O. macrocentra*, and last month, *O. aciculata* and *O. robusta*. Taking all these widely grown cacti as a group, what have we learned? First and foremost it would seem the fact that they are all attractive plants that can add real character to our gardens. Each of these species does well in our High Desert environment. However, all of these cacti have either irritating glochids, sharp spines or both. Except for *O. santa-rita*, *macrocentra* and *aciculate* these are

very large cacti at maturity and should only be planted well away from walkways and driveways. Even the smaller growing cacti in this group can be unpleasant if we come too close. On the positive side this combination of *Opuntia* offers a wide variety of shapes, sizes and winter color in our gardens. They are ideal species as the backbone of any Cochise County cactus garden.

### What is This Mystery Cactus?

One of the 2008 cuttings that is doing well in the author's garden is a mystery. The cutting came from a local cactus garden but as of yet the author has been unable to identify it. (See Figure 1.) It has many



Figure 1

of the characteristics of *Opuntia* including the flattened stem segments. The segments are deep green in summer but have taken on some deep red color this winter. While the stem segments are generally flat they do tend to be somewhat swollen in the middle. Spines are white and up to 2½ inches in length usually only one spine per areole. Glochids seem to be absent. (See Figure 2.) This small cactus seems like it could be a great addition to any cactus garden. If you can help the author identify this species please contact him by E-mail at [ddtempleman@yahoo.com](mailto:ddtempleman@yahoo.com) or call Cochise County Master Gardeners at



Figure 2

520-458-8278 X 2141 and leave your contact details.

Doug Templeman, Master Gardener

### In a Desert Garden

#### *Evulus glomeratus* – ‘Blue Daze’ Convolvulaceae

I love container gardening and I love plants with blue flowers. Everyone that comes to my little garden cannot but help noticing this. I am always on the lookout for another suitable plant for my container garden. It has to be attractive, low water use and thrive on neglect. I just do not have the time to pamper anything and watering daily is completely out of the question. Even plants like petunias do not need water every day if you plant them right. By planting right I mean, give them some soil, give them an oversized container where the plant doesn't get root bound gets proper irrigation. Another important thing to me is that the plant is a perennial; I hate anything to die on me.

To get back to the petunias. Yes, I also grow them. I never thought much about these tough plants. Even in our harsh climate, with a little afternoon shade they keep the blossoms coming, and they are perennials.

(Continued on page 5)

In a Desert Garden Continued from page 4

But this is not about petunias; this is about a plant that I always admired in the “Big Box Stores.” Here it is sold as a hanging plant. I usually stay away from plants like that because they are grown in a greenhouse somewhere in the East, but I did a little research and found this plant as a suitable one in one of Mary Irish’s books and I bought one. This plant is a native of Brazil and Paraguay and it has naturalized in Florida. Surprisingly there is also a variety native to Texas, *Evulus nutalianus*, but of course this one is not available in our nurseries. There is also a cousin here in Arizona, the plant I wrote about last month, ‘Arizona Blue Eyes’, *E. arizonicus*.

‘Blue Daze’ is a bigger plant, to twelve inches tall and spreading to four feet. The flowers are very similar, but bigger, and a deeper blue. They open only for one day, but there are plenty of them. The plant blooms from March to November, which makes it a great candidate for containers. The leaves also are a deeper green with a grayish tint due to the little hairs that makes them soft and velvety to the touch. The plant needs good drainage, another reason for me to plant it in a container as I have heavy waterlogged clay soil. I used an oversized container, with lots of packing popcorn on the bottom and landscaping cloth (so that the soil doesn’t fall out). Use a rich soil with a little sand and some slow-release fertilizer mixed in.

‘Blue Daze’ amazed me all season long. It was just beautiful. It was already May when I planted it and it

(Continued on back page)

## The Agent’s Observations

Q

We usually strip off the leaves and prune the canes to force dormancy in our roses. What’s the best time to do this? Do you have any tips on how much pruning should be done? When should fertilizer be applied during spring?

A

Why are you attempting to force dormancy? Plants will enter dormancy on their own. Plants will not be forced into dormancy by stripping the leaves off. In fact if you remove leaves too early from plants you may actually stimulate new growth and decrease cold hardiness of some plant parts. Perhaps the leaves did not fall off this winter because of the mild temperatures. Prune as you would during a normal winter, removing canes and leaves. Dormancy is regulated physiologically by two major climatic forces; a decrease in the minimum temperature during the fall months and longer nights. These are sensed by plant leaves and buds. Stripping the leaves off will reduce a plants ability to sense these outside environmental factors and cause other problems like death! I did an experiment at a university experiment station by stripping leaves off peach trees in the late fall. Trees that had all the leaves stripped off did not survive the winter. Trees that had leaves stripped off of one-half of the tree survived. Leaves provide some type of “hardiness promoter” that science does not completely understand. It is not known if cold hardi-

ness is a chemical signal, enzyme system or some other mechanism. It is best for most plants to sense the gradual decrease in minimum temperatures and longer nights naturally for dormancy and improved cold hardiness. Because of the mild winter we have just had, it will be interesting to see how this will affect other plants like fruit and nut trees. As of this writing, February 21, chill unit accumulation is at 865 hours. This is enough for normal plant growth (see <http://ag.arizona.edu/cochise/mg/pdf/Mar99.pdf>). Hopefully March will be a “normal” month. Warm late winter and early spring temperatures lead to spring frosts that can kill or damage plant flower buds.

The amount of wood to remove when pruning roses depends on the class of plant. A publication entitled *Roses for Arizona* addresses pruning different classes of roses and is available at Extension Offices.

Apply fertilizers that contain a systemic insecticide to roses in mid-March. Follow the label directions. Always remember to deadhead roses. This will help to conserve plant energy, make more blooms and decrease fertilizer losses. You might want to make another application of fertilizer just prior to the flush of flowering that occurs in late summer or early fall.

Robert E. Call  
Extension Agent, Horticulture

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Pictured are some of the Cochise County Master Gardeners that helped make the 16<sup>th</sup> High Desert Gardening & Landscaping Conference on February 12 & 13, 2009 a success.  
 Back row: Gary Gruenhagen, Doug Templeman, Jim Byrum, Rob Call, Dave Crandall  
 Middle row: Eleanor Templeman, Carolyn Gruenhagen, Rosemarie Burke, Merrienne Lange, Felice Dayhoff, Anita Gollwitzer  
 Front row: De Lewis, Jan Groth, Angel Rutherford, Lori Kovash, Sarah Turan

**The Virtual Gardener** *Continued from page 1*  
 leaves won't develop for about a month. Once that occurs, the seedlings are ready for new homes. Carefully remove them from the potting soil and transplant them into individual pots filled with regular potting soil. When the weather has warmed up the pots can be moved outside for short periods to harden them off and then planted in the ground. (Check out Garden Tip #7563 in the February 2001 newsletter on our Web site for a technique using paper lunch bags.) At this point they can be treated just like the plants you buy in the six-packs.

There are lots of resources available on the Web to help you grow tomatoes. A Google search for "growing tomatoes from seed," produced over 200,000 hits. Here are some of the sites I found most informative:

Renee's Garden—

<http://www.reneesgarden.com/articles/grow-tomato.htm>

Garden Web—

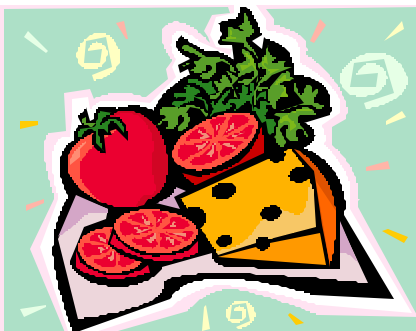
<http://faq.gardenweb.com/faq/lists/tomato/2005015135020413.html>

The Helpful Gardener—

<http://www.helpfulgardener.com/vegetable/2003/tomatoes.html>

Until next time, happy surfing.

*Gary A. Gruenhagen, Master Gardener  
 virtualgardener@cox.net*



**In a Desert Garden** *Continued from page 5*

was hot and dry, I had to water it good every day for two weeks, then it was happy with my three day schedule. Of course it was a stunner during the rainy season. 'Blue Daze' is cold hardy to 20°F. On very cold nights I cover it with a blanket; I cannot let anything die. This plant is not for everybody. It is easily replaced every year, but for sure worth planting. My plant is doing fine, a little burnt on top, but the base is green and it has already sent out new shoots. It likes to be kept on the dry side in winter. A little drink every ten days is probably all it needs. Give it a little afternoon shade on very hot days.

This summer go and get yourself something that "dazzles!"

*Angel Rutherford, Master Gardener*