

The Virtual Gardener—Online Plant Data

If you're like me, you like to know as much as possible about the plants you place in your yard and garden. Although I own lots of books with descriptions of plants, I sometimes find that the plant I want information about is not listed in the books or the information furnished about the plant in the books doesn't include all of what I'm looking for.

At a minimum, the information I like to have about every plant in my garden includes: mature size, water requirements, soil requirements, sun exposure, nutrient requirements, cold and heat tolerance, and a picture of the plant. Even the venerable *Sunset Western Gardening* Book sometimes lets me down, so I often turn to the Web.

A great online resource for gardeners in the Southwest is the Arid Plant Manual maintained by the Pima County Master Gardeners —

(http://cals.arizona.edu/pima/ gardening/aridplants/ aridplant index.html). On this Web site you will currently find entries on over 200 plants that are grown in and around Tucson. Information given about each plant includes (as applicable): botanical family, overall form, seasonality, size, leaf form, flowers, fruit, stem/trunk form, range and origin, hardiness, landscape uses, propagation, maintenance, and requirements for sun exposure, water, and soil. In addition, each entry contains several pictures of the plant, including details of foliage and flowers. The list can be searched by either common or botanical name.

From the Arid Plant Manual Web page you can return to the Pima County Master Gardener Home Page where you will find links to lists of

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plants suitable for container gardening as well as recommended varieties of garden fruits and vegetables. As if that were not enough, the Home Page also contains links to all of Pima County's Extension Agent, John Begeman's gardening tip articles that have appeared in the Sunday editions of the *Arizona Daily Star* over the years.

Of course I realize that not every plant that is appropriate for Tucson and its environs is appropriate for the High Desert so you must pay careful attention to the hardiness rating given to the plants before deciding to install one in your yard.

Another way of collecting data and pictures of plants is just to search the Web for the plant name. Using the botanical name will give the best results. There is an amazing amount of plant information out there, ranging from sites maintained by dedicated amateurs to professional botanists who maintain Web sites for botanical gardens, commercial nurseries, and government organizations.

When I find a site that contains the information I would like to keep on a plant in my yard, I copy the Web pages to my hard drive where I maintain my own online reference library in a folder named "My Plants." That makes the information available at the click of a mouse or press of a key and I don't have to worry about Internet connections or dreaded 404 errors that tell me a Web site I want is not available. There are several simple ways of saving the data to your own computer.

If the Web page is in portable document format (*.pdf), you can simply save the page to your hard drive from the Adobe Acrobat Reader. If the page is in hypertext markup language (*.htm or *.html), and you are using Microsoft Internet Explorer as your browser, open the Save As submenu under the File menu to see a dialog box that asks how you want to save the Web page and where you want to save it. You have two options for how you want to save the page. If you save it as "Webpage, complete (*.htm; *.html)" the text will be saved in one file and the images will be saved in separate folders in the same directory as the text file. If you save it as a "Web Archive, single file (*.mht)," both the text and the images will be saved in a single file. I recommend this method. A third way of saving a Web page is to copy the entire page by selecting Select All from the Edit menu and then selecting Copy from the Edit menu. Once you have done this, you can open a Microsoft Word or other word processing document and paste the Web page into it. When you save the document, all the text and images will be included in a single file. The advantage of copying Web pages and pasting them into word processing documents is that you can edit them there to remove things you don't want included, add your own notes to the document, or add additional Web pages from other sources.

Until next time...Happy Surfing.

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

Cuttings 'N' Clippings

The next CCMGA meeting is 5:00 p.m. Thursday, June 7, 2007 at the University of Arizona South campus, Room 508. This is the Annual Business Meeting with election of officers and approval of budget. The guest speaker will be Tawna Nicoll, coowner of EZ Lawn.

The June Water Wise lecture will be held Saturday, June 2 from 9:00—11:00 a.m. at the University of Arizona South Campus with Cado Daily, UA Extension Water Wise, and Rick Weisberg, Oasis Water Harvesting. Get ready for the Rainwater Harvesting Tour on July 7 by learning how you can put together your own rainwater system. Gray water systems will also be discussed. For information contact Cado Daily at 458-8278, Ext. 2139 or check the web site: www.ag.arizona.edu/cochise/ waterwise

* July 7 is the Rain Water Harvesting Tour. See residential rainwater harvesting systems on this free tour. Call a Cooperative Extension office for a map and details.



Here's a web site you might find interesting. Enter your zip c o d e t o **Earth911.org** for real time air

pollution info as well as where to compost and dispose of household waste in your area.



In a Desert Garden

Manfreda—(Texas Tuberose)
Succulent Perennial

Everybody who knows me knows that I love unusual plants and that I am a collector. I came across this little guy one day on my usual raid of the local nurseries and I fell in love with it.

This plant looks like a miniature spineless Agave americana. As a bonus it flowers a lot more often and doesn't die afterwards. The Manfreda I grow is Manfreda maculosa and is quite hardy. The foliage dies back after the first frost but recovers in spring. My plant is starting to bloom right now and has sent up three stems that also look like the flower stem of an Agave. The plant belongs in the plant family Agavaceae. The green leaves are marked with purple dots and blotches and the flowers are white, aging to maroon and are very fragrant. Hummingbirds are very fond of them.

It is best to give these beauties some shade as they are used to growing under shrubs and trees. In my yard the plant gets a fair share of sun and only some shade in the afternoon, but it does well and it came through the cold winter we had this year. I grow it in my little rock garden and it feels right at home there. The plant needs good drainage, but is not fussy about the soil. Keep in mind that this plant needs a little more water than its big look-alike the *Agave americana*. In hot months it likes water at least once a week, but because it is a very small plant it doesn't need to be much. There are different varieties of Manfreda—some are also evergreen, but not all are hardy in our climate, and of course they are not readily available. In Mexico Manfreda species are used for healing snakebites and the roots can be used to make

Angel Rutherford, Master Gardener

June Reminders

- Check tree ties
- Remove stakes if new tree can stand alone
- Mulch trees & shrubs
- Remove faded flowers & fertilize roses
- Stake tomato plants & watch for curly topremove
- Prevent blossom end rot on peppers, melons, squash, and tomatoes by even watering
- Water! Water! Water!

How lovely the silence of growing things

Robort E. Call

Robert E. Call Extension Agent, Horticulture

> Carolyn Gruenhagen Editor

People Profile— Gardeners

Common names: Green Thumbs, Dirt People, The Manure Party

Range: Since this species has been introduced, it has spread quickly and can be located all over the world, unfortunately no cure has been found.

Of all the people in the world, gardeners have got to be one of the most interesting as they are constantly subjecting themselves to all kinds of abuses normal people would not think of tolerating.

The first step into the world of gardening is usually small, a few houseplants or turning a postcard patch of earth into a flower or vegetable garden. After minimal success they often decide to cross over into other areas. Usually beginners are soft, both mentally and physically, until the challenges of battling pests and diseases, moving tons of rocks, mourning over dead plants, digging planting holes in caliche, and varmints destroying everything in sight, eventually hardens them up. Most gardeners develop broad vocabularies, spouting Latin effortlessly, and of course, speaking that universal language—cussing. Some take the ultimate vow and enroll in classes and become Master Gardeners.

Gardeners are usually referred to as "big dreamers." There is no end in sight for gardeners—once you start there is no stopping. In fact, there are documented cases of people gardening for over 50 years!

Really great gardeners can be easily identified. Ask them about a problem you have and they will be the first to pass along their mistakes, how they solved them, and as a bonus, an additional hour of useful tips. Usually after a few years in the field, most gardeners develop a passion for one or two subjects. Whether it's propagation methods, integrated pest management, or xeriscape gardening, they are a wealth of information and are highly regarded as "Garden Figures" in the community. As we bravely venture into a brand new year of gardening, here are some garden resolutions:

- Teach someone—especially a child—to garden
- Plant a herb garden
- Conserve water—request a free Water Wise audit for your home and/or business (458-8278, Ext. 2139)
- Reduce, Reuse, Recycle
- Start a compost pile
- Become a Master Gardener–(458-8278, Ext. 2141 for details)
- Plant a tree
- Start a garden journal
- Get into native plants plant a penstemon, dalea, or agave
- Start a wildlife garden
- Sow only one squash/ zucchini plant this year
- Thank the person who taught you how to garden!

Cheri Melton, Master Gardener

(Reprinted from the January 2000 Cochise County Master Gardener Newsletter.)



Cheers!!!

The Spring Water Wise/Master Gardener

Xeriscape Tour was a big success thanks to all who helped! Over 160 people visited four beautiful low water landscapes on a perfect day. Our lead docents were Doug and Eleanor Templeman (who also hosted the post-tour potluck at their beautiful new home), Linda Gleason, Rosemarie Burke, and Dave Barry. Our docents and committee members were: Anita Gollwitzer. Carla Dailey. Charlie Narburgh, Cliff and Donna Blackburn, Deke Descoteaux, Helen Morgan, Jackie Jones, Jim Byrum, Karl Hollsten, Terrie Gent, Shu Lin Telford, Bob Welton, Madlyne Sandell and Lori Kovash. You will notice some new names in our group because they are taking the MG class now, and volunteering even before they graduate! Thank you all for helping to educate our community on being water wise.

Thanks, also, to all those who helped spruce up the UAS campus before the graduation ceremony!

The Agent's Observations

A broadleaf weed with glossy green leaves has invaded our property and is in our Bermuda grass lawn.

What is this weed and how can we get rid of it?

A sample was brought to the office and the weed was identified as khakiweed (Alternanthera pungens). Khakiweed is a warm-season perennial which reproduces by seeds and thick, deep seated, woody vertical roots. The stems are prostrate or drooping on the ground, forming mats ½ to 2 feet in diameter. The plant is covered with jointed distinct hairs, especially at the stem nodes, and on the backs of the stiff papery flower parts. The latter hairs are minutely barbed. The glossy leaves are opposite, ½ to 1½ inches long, appearing hairless, but usually with scattered hairs, particularly on the stalks. The 2 leaves of the same pair are often very unequal in size. The small whitish flowers are in dense clusters around the stem at the base of the leaves. The rounded seeds are light reddish brown and shinny. Khakiweed, a native of tropical America, has become one of the most pernicious pests in southern Arizona lawns in the last few years. It is very aggressive, and often covers large areas in Bermuda grass lawns, crowding it out. This weed is found also along roadsides, city streets,



gardens, and cultivated fields in Cochise, Pima, and Santa Cruz counties; up to 5,500 feet elevation. Flowering occurs from June to November.

Control: Hand pulling this weed is ineffective unless all of the fleshy roots are removed. If any are left behind they will re-sprout and grow towards the soil surface. A systemic herbicide like RoundUp will kill khakiweed roots and the plant, but must be applied with additional surfactant to allow the herbicide to penetrate the glossy leaves. With vigilance this weed can be controlled, but it may take four or five years.

Source: An Illustrated Guide to ARIZONA WEEDS. Kittie F. Parker. 1990. The University of Arizona Press, Tucson, AZ. Pages 112-113. http://www.uapress.arizona.edu/onlinebks/weeds/khakiwed.htm

Our mulberry trees have only the berries on the branches. having lost most of their leaves. These are large established trees. We were watering them using gray water from the washing machine for the past 2 years. I did not realize that the laundry soap would affect them so much that the leaves would fall off. We have redirected the water about ten feet away from the trees now. I fertilized the trees with two bags of steer manure recently. There are now green leaves beginning to sprout. Do you have a list of safe soaps I could use?

To help the trees you should water them at the drip-line outwardly for three to four times longer than you normally would with potable water. This will help leach the salts (carbonates, sulfates and chlorides) and other chemicals like boron, sodium, and phosphate contained in many laundry soap past the root zone.

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This action will help move these agents past the root zone, and is call "soil leaching." The water should penetrate the root zone at least three feet deep. The water depth can be checked using a soil probe. This might have to be done several times over a month or two. The steer manure you applied usually comes from feed lot cattle and has added more salts to the soil. It would be best not to add any more steer manure. Landscape trees normally do not need to be fertilized. A pamphlet entitled, Grey Water and Your Detergent lists many commercially available laundry detergents and their chemical characteristics when used with gray water irrigation. It was produced by the University of Arizona Cooperative Extension and the Office of Arid Land Studies. This publication was sponsored by Tucson Water and is available at Cooperative Extension Offices. For further information on using gray water point your web browser to: http://cals.arizona.edu/cochise/waterwise/graywater.html

Robert E. Call, Extension Agent Horticulture



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