

High on the Desert Cochise County Master Gardener Newsletter

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Water Gardening

This month we begin a new series on water gardening written by Master Gardener Angel Rutherford. There is a lot of interest in water gardening and a surprisingly large number of water features in area gardens. Angel has seven in her yard ranging from 60 gallons to 900 gallons. In her ponds, Angel grows a large variety of plants, has koi fish, and nurtures a large population of the endangered Leopard frog.

Gardening in water



Get your hands wet with Angel

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No garden is entirely complete without a water feature. Every garden needs at least one, whether it is a birdbath, a fountain, a planted tub, or a pond filled with beautiful plants, fish, and frogs. This column will be dedicated to the water garden. Most of you will say that you have enough to do and don't need to add anything else. Maybe I can persuade you how simple, easy, and rewarding a water garden can be. If your

time is limited, a small container garden or fountain is all you need. If you enjoy working in your garden, you can allow a water feature to be as much work as you like. A pond offers endless possibilities for adding plants, fish, and other pond animals. If you have young children, a pond can be very exciting for them. Keep in mind, children should always be super-

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vised around a body of water and even a shallow pond can be dangerous for toddlers.

Ponds are very appealing, but can be time consuming. Water gardening is a hobby that will grow on you. One of the easiest ways to try your hand at gardening in water is to create a miniature pond in a container. The choices of containers are endless and the variety of water plants is big and so is the fun. Water plants are easy to grow and keep in mind they cannot be under- or over-watered. Water plants multiply fast and can be shared.

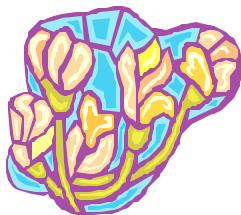
A water garden attracts all sorts of beautiful and beneficial insects like dragonflies and damselflies. The sound of water is very relaxing. In my next article I will show you how easy it is to put together a little water garden, a little world of it's own. Until then, consider gardening in water as a new dimension and get your hands wet.

Water plant of the month:

Watercress, *Nasturtium officinal*.

Every month I will feature a plant. The first is watercress. It is good to eat, very healthy, full of vitamins, and a very good water purifier. It is easily grown from seed if the soil is kept wet at all times. It is even easy to propagate if you are lucky to find it in your grocery section. Just insert stems in water with a few drops of fertilizer and wait for roots to grow. Watercress likes to grow in running water which makes it a great plant for waterfalls.

Angel Rutherford
Master Gardener



High on the Desert

The 9th annual
High Desert Gardening & Landscaping Conference
will be held February 21 & 22, 2002
at the Windemere Hotel & Conference Center
in Sierra Vista. Watch for registration forms in next
month's newsletter and on our web site.

We hope to see YOU there!

Cuttings 'N' Clippings

* The next regular meeting of Cochise County Master Gardeners is January 2, 2002, 5:00 p.m. at the Sierra Vista Library

* The January 5, 2002 *Water Wise* workshop is "Septic Care" presented by John Titan, R.S., Cochise County Environmental Health Specialist and Dawn Long, American Septic Service. The free workshop takes place at the U of A South Campus from 9—10 a.m. It is free and open to the public, and registration is not necessary.

* Cochise College is offering *Home Gardening AGR 215* beginning January 15, 2002 and running for 16 weeks from 5:00—8:00 p.m. The class will cover the care and maintenance of trees, hedges, shrubs, and flowers as well as cultivation of vegetable gardens. For more information or to register call (520) 515-0500.

* Thanks to Master Gardeners Emily Boyd, Cado Daily, Gwin Garcia, Carolyn Gruenhagen, and Helene Wingert for the beautiful decorations on the living Christmas Tree donated by Cochise County Master Gardeners Association to the 2nd annual Festival of Trees. The theme of the tree was "...and Heaven and Nature sings." The fund-raising event took place December 1 & 2 at the Mall at Sierra Vista and was sponsored by the Sierra Vista Regional Health Center Foundation. CCMGA participated last year also.

Robert E. Call

Robert E. Call
Extension Agent, Horticulture

Carolyn Gruenhagen
Editor

Book Review

Sunset Western Garden Book – 2001 Edition, ISBN 0-376-03875-6, Sunset Publishing Corporation, 786 pages

Every few years Sunset updates their *Sunset Garden Book*. This year the book went under a major overhaul with over 2,000 new plant entries and more than 1300 photos.

CONTENTS:

Gardening for the new century

Discusses embracing the land and gardening with Mother Nature not against her. Covers plant diversity and how to recycle plants and materials into the garden. There are accompanying color pictures of each region.

The West's Climate Zones

New maps for Alaska, Hawaii, and Southwestern Canada. Sunset has its own standards of zones which take into consideration latitude, elevation, ocean influence, continental air influence, mountains and hills, microclimates. In comparison the USDA zones are based on winter minimum temperatures.

A Guide to Plant Selection

Thirty-one plant lists to help you choose the best plants for your garden. Includes plants for shade, color, trees, shrubs, perennials and vines, plants that attract hummingbirds, butterflies and butterfly larvae, plants for containers, and for windy and dry areas.

Western Plant Encyclopedia

More than 8,000 plant listings. Plants are listed in order of botanical names but the back index list plants both by common and scientific name so cross referencing is easy. The black and white plant illustrations have now been replaced with full-

color plant illustrations and in some instances full color pictures.

A Practical Guide to Gardening

An A-Z dictionary covering the basics of gardening. This has been greatly expanded from earlier books and includes good sections on composting, pruning, Integrated Pest Management, water conservation, watering guidelines and irrigation methods, herbs, and much much more.

Resource Directory

Includes a nice list of Public and Historic Gardens to visit. Also - demystifying scientific plant names – a guide for botanical names. For instance if you just bought a *Salvia discolor* you will find that discolor refers to the color of the flowers or foliage and it has two separate colors. There is also a pronunciation guide.

Glossary & Indexes

The index is broken down into two sections: Gardening Terms and Topics and Scientific and common names of plants. Under the glossary section the gardener will find five pages of helpful gardening terms.

The last Sunset Garden Book I bought was in 1998. I gave it to my mother-in-law because I found that it wasn't useful for our gardening region. This new issue is a gem and should be a worthy consideration for your gardening library shelf.

*Cheri Melton
Master Gardener*

High on the Desert

The Cochise County Master Gardeners Association (CCMGA) is awarding up to five full scholarships to the 2002 High Desert Gardening & Landscaping Conference to be held at the Windemere Hotel & Conference Center February 21 & 22. 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 1,000 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 U of A South campus.
5. Entries must be received at the Cooperative Extension Office at the U of A South campus not later than close of business on January 15, 2002.

Entries will be judged by the Cochise County Horticultural Extension Agent and a committee of Master Gardeners appointed by the President of CCMGA. Winners will be notified by the end of January and the names of awardees will be announced in the February 2002 Master Gardener newsletter.

The Virtual Gardener—Christmas Cactus

The Christmas cactus, like the poinsettia, is an icon of the Holiday season, so I thought it might be interesting to see what I could find out about it on the Web. As it turns out, there is lots of information.

One of the things I discovered is that the Nursery trade and the taxonomists are not in full agreement on what Latin name should be applied to the Christmas cactus. The older name, *Zygocactus truncatus*, has been around since the late 1800's and is still widely used in the commercial trade. *Schlumbergera bridgesii* is the newer name preferred by taxonomists. Although you may run across the cactus in a store under either name, the most likely name will be *Zygocactus truncatus*. Its common name refers to the red flowers it bears around Christmas time. To further add to the confusion there is yet another cactus that is sometimes called the Desert Christmas cactus (AKA Pencil Cholla). This one is a cholla with the Latin name of *Opuntia leptocaulis*. It is called a Christmas cactus because of its bright red fruits that appear during the winter.

The traditional Christmas cactus is a native epiphyte of the South American jungles and therefore has the characteristics of a tropical plant. It is cool, but not cold tolerant, and requires more water than native cacti. It is an indoor plant. The Desert Christmas cactus, as a native of the Sonoran and Chihuahuan deserts, is not too sensitive to cold temperatures and requires little water. It is an outdoor plant.

It is easy to get a Christmas cactus to bloom for Christmas if you have just purchased it because the nurserymen have made sure it was treated in just the right way to get it to bloom. Getting it to bloom for the next Christmas is a little trickier.

Blooming is controlled by the length of the day and temperatures in a complicated sort of way. The plant will bloom if, for a period of six weeks, it is never exposed to temperatures that exceed 55-60°F no matter how much daylight it receives. If it is exposed to higher temperatures, you will need to keep the plant in complete darkness for at least 13 hours a day in order for it to bloom. This means you need to start the treatment early in order to get blooms by Christmas.

The Christmas cactus does not need any other special treatment throughout the rest of the year. It can be exposed to lots of light in the summer but should be partially shaded to keep it from cooking in our intense High Desert sunshine.



Schlumbergera bridgesii

You can keep it indoors all year round or put it outside when the temperatures are warm. It needs enough water to keep the soil moist but not saturated. The rule of thumb is to water the plant only when the top half of the pot has dried out. It grows well in a good potting soil or mixture of half sand and loam and can be fertilized with a weak solution of liquid fertilizer. It likes to be a little cramped in its pot, so don't put it in too large a container.

If you would like additional information on Christmas cacti, check out the following Web sites:

- <http://www.fernlea.com/xmas/cactinfo.htm>
- <http://www.desertusa.com/mag98/dec/papr/xmascactus.html>
- http://www.hort.purdue.edu/ext/christmas_cactus.html
- <http://www.ext.vt.edu/departments/envirohort/factsheets/pottedplants/xmascact.html>
- <http://128.193.26.240/agcomwebfile/garden/Holiday/cactus.html>
- http://www.gardenplace.com/tips/hint_display.asp?cat_id=140
- <http://www.theamateursdigest.com/xmascact.htm>
- <http://www.cas.psu.edu/docs/CASDEPT/PLANT/ext/xmascact.html>
- <http://www.ag.uiuc.edu/robsond/solutions/horticulture/docs/xmascact.html>
- http://www.cris.com/~knelson/Christmas_Cactus.htm

Until next month, happy surfing!

Gary A. Gruenhagen, Master Gardener
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Time to Recycle!

- QwestDex has been recycling old phone books since 1991. Beginning December 5 through January 12, 2002 recycling bins will be located all around Sierra Vista. So don't throw away your phone books—recycle them! By recycling old phone books, more than 2½ million trees, a billion gallons of water, 529,872 barrels of oil and more than 620 million kilowatt hours of energy have been saved.
- The City of Sierra Vista has a Christmas Treecycling Program. There are two ways of recycling your tree. If you have a live tree, you can donate it to the City for planting in Sierra Vista, and if you have a cut tree, bring it to the Mall at Sierra Vista between December 29 and January 12, 2002. For information on treecycling call the City at 458-3315.

Source: Sierra Vista Herald

The Agent's Observations

Q I have several fruit and shade trees that need to be pruned. When should I think about pruning these plants?

A DO NOT PRUNE NOW! Deciduous plants are preparing to go into winter dormancy on the high desert. Pruning is a dwarfing, stimulating, and stressful event. Trees and shrubs are moving chemical compounds from leaves and branches and storing carbohydrates in trunks and roots.

Experimentally, I have stripped green leaves from peach trees in the late fall before they fell from the tree. During the following winter the peach trees died, failing to show any signs of life the following spring. Scientists have yet to figure out what causes cold hardiness in plants; providing protection from cold weather and survival the following spring. From this experiment we learned that leaves, at least in peach trees, produce something that imparts cold hardiness. Is it a complex of chemicals, hormonal controls, an enzymatic systems or something else? It is a "black box" that no one has yet peered into. I know scientists who have spent their entire careers trying to understand plant hardiness and dormancy, and to date no one has solved the mystery.

We do know that in many plants dormancy is a two step process. In

the first step, chill hours are accumulated in temperate zone plants. For example, several hundreds of hours of chill accumulation, temperatures between 32° to 45° F, are required for fruit and nut trees. When the chill requirement is met then the second step, growing-degree-hours (GDH) begin to accumulate until buds swell, flowers bloom, and vegetative growth begins.

If pruning is done too early, buds that are going dormant may be stimulated and begin to grow only to be frozen later. This abnormal growth uses energy and other resources that are normally stored to survive the winter and produce rapid spring growth and development of leaves and shoots. All of this growth needs to occur in the spring before photosynthesis can begin anew in deciduous plants. Even evergreens growing actively in the winter slow and in cold weather stop. Stimulating new growth in late fall is just opposite of what most temperate zone plants need to survive the winter season.

Prune most fruit and ornamental trees and shrubs just before bud swell occurs in late winter or early spring, between February and April. With many flowering ornamental plants the recommendation is to prune after
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flowering occurs. There are several good books on pruning ornamental trees and shrubs as well as fruit and nut trees. If you have questions on a specific plants' pruning requirements contact the Extension Office in Sierra Vista or Willcox.

*Robert E. Call
Extension Agent, Horticulture*



Living Christmas Trees

According to the memories of some longtime residents of Cochise County, before the time of the wood-burning smelter, pine trees were abundant on our mountains and foothills. Choosing a live Christmas tree is one way to help those missing pines. The trees which have the best chance of surviving when planted outside have been growing in a container all of their lives. Pines which were recently harvested from a field will probably die within the year. They have lost many crucial roots.

Pot grown specimens will be firmly anchored in their pots and may have roots growing out the drainage holes. They will be in good soil, not clay, and will not need fertilizer for about a year.

Live trees should be kept indoors for

only two weeks. A good way to water them during that time is to put ice cubes in the pot on top of the soil. You won't have any spills, and the tree will get a slow, deep watering.

The types of trees that make living Christmas trees are numerous. If you know where your tree will be planted, choose it with that particular microclimate and size of space in mind. Don't pass up cedars, junipers, or cypresses when you are looking for a tree. They may be unconventional, but may also be priced right, and I can tell you from experience they make lovely Christmas Trees.

Don't forget to Treecycle with the City of Sierra Vista if you don't plan to plant your living tree.

*Reprinted from the December 1991
Master Gardener Newsletter by
Elizabeth Riordon, former Cochise
County Master Gardener*