



High on the Desert Cochise County Master Gardener Newsletter

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

BUTFIRST Syndrome

I have a condition often found in the Green Thumb Club. The horticulture world is frantically searching for a cure. This is an ailment many of us suffer from and may not as yet have been diagnosed.

However, now you may be able to discuss it with your loved ones and try to explain what really happened to you all those times you tried so hard to accomplish something and didn't.

It's called the "BUTFIRST Syndrome."

It's like when I decide to weed the garden—I start down the beds and notice the penstemons need pruning. Okay, I'm going to do the weeding—BUTFIRST I'm going to prune the penstemons and the salvias. After that I notice the desert willow tree needs a drink of water. Okay, I'll just finish pruning, BUTFIRST I'll

get the hose and water the tree. Now where's the spray nozzle? OOPs! There's the wheelbarrow full of veggie trimmings from last year in the side yard. I'm going to look for that spray nozzle, BUTFIRST I need to put the wheelbarrow of veggie trimmings into the compost pile.

I head for the compost pile, look out over the veggie garden, notice my shade cloth has blown off the lettuce bed. I put the wheelbarrow next to the garage, and darn it, there's the pitchfork for moving the manure pile against the garage.

What's it doing here? I'll just put it away, BUTFIRST I need to fix the shade cloth. Head for garden gate and Ack! I stepped on the dog. The dog needs to be fed. Okay, I'll put that pitchfork away and fix the shade cloth. BUTFIRST I need to feed the dog.

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At the end of day:

The shrubs are half pruned...

The tree never gets watered...

Veggie trimmings never make it to the compost pile...

Shade cloth is still flapping in the wind...

Spray nozzle is still missing...

The dog ate the lettuce...

AND, when I try to figure out how come nothing got done all day, I'm baffled, because I KNOW I was BUSY ALL DAY! I realize this condition is serious...and I should get help, BUTFIRST I think I'll read my seed catalogs.

Friend and former Cochise County Master Gardener, Maggi Crist, sent me the original BUTFIRST—I revised it to reflect my own life. I hope you enjoy it..

Cheri Melton, Master Gardener



Robert E. Call

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Christmas Tree Permits

The Douglas Ranger District, Coronado National Forest is offering tags on a first-come, first served basis for cutting Christmas trees in the Chiricahua, Dragoon, or Peloncillo mountain ranges. There are 500 tags available with a limit of one tag per household. Tags are available at the Douglas Ranger District office at 3081 N. Leslie Canyon Road, Douglas, AZ 85607 or through the mail. For more information call (520) 364-3468.

Cuttings 'N' Clippings

* Cochise County Master Gardeners Association (CCMGA) next meeting will be December 4 at 5:00 at the Sierra Vista library. The speaker will be Hank Huisking, the Water Wise instructional educator for the schools.

* The January CCMGA meeting will be held on the 8th at the Sierra Vista Library, 5:00 p.m.



High on the Desert

The Cochise County Master Gardeners Association (CCMGA) is awarding up to five full scholarships to the 2003 High Desert Gardening & Landscaping Conference to be held at the Windemere Hotel & Conference Center February 20 & 21. 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—Irrigation Design

A few days ago I was reading some excellent articles on drip irrigation by Master Gardener Joseph Stehling in the Doña Ana County, New Mexico Master Gardener Newsletter and ran across a reference to the *Rainbird® Low-Volume Landscape Irrigation Design Manual*. I suspected I might find it on-line, and my suspicion proved correct. I found it at <http://www.rainbird.com/pdf/turf/D39030D.pdf> The manual is a truly outstanding document and well worth the only price you have to pay to read it, the time to download it. Although it is published by a company that manufactures irrigation products and those products are, of course, featured in the manual, the design process described can be used with any low water volume irrigation products.

If you're thinking this is one of those abbreviated trifold design brochures you pick up at the hardware store, think again. This is a hefty, 118 page document that leads you through a very structured process to come up with good design for a low-volume irrigation system. I have several books on drip irrigation and they all have good instructions for assembling a drip system, but none discuss the design process with the rigor and thoroughness of the Rainbird® manual. It leads you through the process using a series of forms, tables, and step-by-step procedures. The result should be a sound design for a system that will deliver precisely the amount of water your plants require, no more, no less.

In the first stage of the design process you gather and record data about your property. This involves gathering information about your water source, selecting your soil and climate types from tables in the

manual, and describing the hydrozones you propose to use. You will also produce a sketch of the property. Along the way you will learn a little bit of theory about the way water behaves in the soil and how plants take it up. In case you are wondering what a hydrozone is, the manual defines it as a grouping of plants with similar water requirements served by one control zone and irrigated by a low-volume system.

Once you have finished gathering basic data about your property, it's time to begin estimating the water requirements of the plants themselves. The worksheets provided lead you through an analysis of each hydrozone. You will classify your plant zones into those that are sparsely planted and those that are densely planted and learn how best to water each type. You will learn how to calculate the exact amount of water required for each plant based on the potential evapotranspiration for your climate, the density of plants in the hydrozone, the efficiency of the watering system, and any special requirements due to microclimates. All of this data is transformed with simple calculations into water requirements for dense plantings measured in inches per day and requirements for individual plants in a sparsely planted hydrozone measured in gallons per day.

As you work further through the manual, you will learn how to pick the best types of emitters to use for specific environments, how to place them around the plants, and how to determine the length of watering times for each hydrozone. You will also learn a little about hydraulics and how to best lay out your irrigation system.

All in all, this is the best low-volume design text I have yet run across, and the price is right. If you are interested in installing a low-volume irrigation system on your property and want to do it yourself, I highly recommend this manual.

Until next month, happy surfing.

Gary A. Gruenhagen, Master Gardener
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Rainwater Harvesting

Definition: the capture, diversion, and storage of rainwater for plant irrigation and other uses. Water can be directed to earth berms and swales or into barrel/cistern systems and stored for use during dry periods.

Advantages: Provides “free” water and reduces dependence on ground water, sloping ground enhances the effectiveness of using berms and swales, reduces off-site flooding and erosion by holding rainwater on the site. It is a clean, salt-free source of water for plants—it also contains dissolved atmospheric nitrogen, a fertilizer that is lacking in our native soils.

Disadvantages: None! Harvesting rainwater is a “win-win” situation.

For more information:
<http://www.ag.arizona.edu/cochise/mg/>

Garden Tip #6298

If you are interested in controlling the flow of water on your property, you need to know how the elevation varies. Even a few inches are important.

Over the years I have tried various methods of precisely measuring changes of elevation in my yard, but have found each of them to be less than totally satisfactory. Most require a couple of people to make the measurements, and I have not been very successful in recruiting someone to devote a day to help me with such a boring job. This weekend I purchased a device for less than twenty dollars at a local electronics store that allows me to measure elevation changes by myself.

The device is a laser level. Basically it's a carpenter's level with a laser pointer built into the end. The laser on my level will project either a dot or a horizontal line, but the dot is more intense and easier to see in daylight. To make it even better, this level has a threaded socket that will accept the screw from a standard photographic tripod. To set it up, I screw the level onto the tripod and adjust the tripod until the bubble on the level is centered. Then I measure the height of the center of the laser from the ground and mark that distance on a board (a furring strip, preferably painted white, works fine.)

To measure the elevation change between two points, set the tripod over the first point, turn on the laser, and point the laser at the second point. Hold the marked board vertically over

the second point and measure the distance between the point on the board illuminated by the laser dot and the mark you made on the board. If the laser dot is above the mark on the board, the elevation of the second point is lower than the elevation of the first point, and vice versa.

I found that it is easy to "lose" the laser dot in bright sunshine when you are some distance from the tripod, so I sometimes had to start with my target board close to the tripod and then progressively move farther away, always keeping the dot projected on the board. Using this method I was able to easily measure elevation differences at points more than 50 feet apart.



So if you've always wanted to be an amateur surveyor here's your chance to have a little fun without spending a fortune on expensive equipment.

"Marvel Meal" Suet Dough Recipe

Basic mix:

- 1 C peanut butter
- 1 C shortening/solid bacon grease
- 1 C white flour
- 4 C yellow cornmeal

Mix ingredients and put into molds (reuse old suet containers if possible). Place in refrigerator for at least 2 hours to set up. Serve!

-Adapted from the *Bird Watcher's Digest* "Enjoying Bird Feeding More"



Houseplants as Air Cleaners

We all know about the photosynthetic exchange of carbon dioxide for oxygen. Plants can also be used to purify water and even treat human fecal waste. Space scientist, Bill Wolverton, retired from NASA, has done a study using houseplants like Scheffleras, Philodendrons, Pothos and the good old-fashioned Spider plant to purify air.

Wolverton, who is trained as a microbiologist, chemist, and environmental engineer researched the use of plants for a self-sufficient environment for space capsules. In the model he developed, houseplants provide future astronauts with a constant source of clean air through the photosynthetic exchange of carbon dioxide for oxygen.

The problem of indoor pollution is of growing concern. Such gases as formaldehyde, benzene, and trichloroethylene are routinely found in the air of most homes. All these chemicals have been linked to an array of health problems, ranging from headaches to cancer. Researchers stated that many common low-light houseplants were efficient in cleaning the air of dangerous gases. The problem in our homes is that they are built almost airtight and with the windows closed there is practically

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The Agent's Observations

The International Master Gardener Conference is COMING!

Visit the recently expanded conference website at <http://mastergardener.osu.edu/imgc2003> or <http://mastergardener.osu.edu/imgc2003> for information and ON-LINE Registration. Over 40 master gardeners have already done so, and the on-line registration process has just gone live.

And remember, they need applications for the Search for Excellence recognition program. Let's get those success stories told and bring recognition to our volunteers.

Conference information and vendor brochures (pdf) are on line for downloading.

We'll see you June 2003 in, as Winston Churchill once said of Cincinnati, "America's Most Beautiful Inland City."

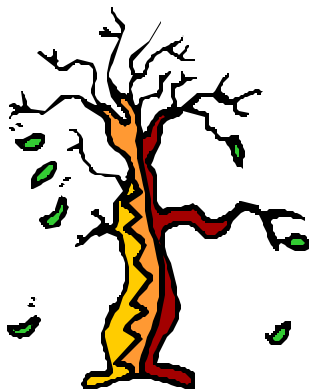
If you have any problems with the website, please email: rioerio.1@osu.edu } rioerio.1@osu.edu

Q

Should I fertilize and water my trees during the winter? How about house plants?

A

Fertilizing of trees and shrubs during the winter in the high desert should not be done. Fertilizer could stimulate



plants to come out of dormancy and start to grow and winter damage could occur. These plants are "resting" above the ground but do have activity in the roots if soil temperatures are warm. Normally trees and shrubs that go into winter with adequate soil moisture do not need watering during the winter. Usually winter rains or snow provide enough water. Deciduous plants do not need much water because the leaves, where transpiration occurs, are gone and nutrients needed for growth are not required because there is no shoot growth. The same holds true for most evergreen plants such as pines, junipers, and native oak trees. When the soil and air temperatures are cold and sunlight is reduced, why grow? That is what spring, summer, and fall are for!

Houseplants are generally tropical in origin and survive best in warm humid environments. Houseplants need to be watered because of the limited soil volume they are confined to. House

temperatures are warm and allow plants to continue to grow. The best way to determine soil moisture is to stick a finger in the soil one to two inches. If the soil feels dry, water; if soil feels moist, don't water.

Fertilizing houseplants during the winter months is not encouraged because of reduced light from the sun. However, if you are "spoon feeding" your plants, that is giving a little fertilizer at each watering, cut back on the fertilizer by giving 1/4 to 1/2 the normal amount.

Many houseplants need high humidity to be "happy," especially true with ferns. With forced air heating in many homes, house humidity can be lower during the winter than during the hot summer because of swamp cooler use. Humidity can be created by placing the potted plant on top of a pebble filled shallow dish. Fill the dish with water as needed, maintaining the water level near the top. The dish should have a diameter nearly as large as the plant diameter. The pebbles are important so that the potted plant is not sitting in water which will cause soil saturation and thus root rot. As the water evaporates, a humid environment is created in which a tropical plant will grow and thrive. This is much better than using a squirt bottle three times a day to try and humidify the plant!

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no fresh air exchange. Heavily planted rooms help to filter all these pollutants.

The best plants to do the job are:

- Spider Plant-*Chlorophytum comosum*
- Pothos-*Scindapsus aureus*
- Philodendrons-*P. domesticum* and *P. oxycardium*
- Umbrella Tree-Schefflera
- Peace Lily-Spathiphyllum
- Swiss Cheese Plant-Monstera

Angel Rutherford, Master Gardener

High on the Desert

The 10th annual High Desert Gardening & Landscaping Conference will be held at the Windemere Hotel & Conference Center on February 20 & 21, 2003. The conference will feature Mary Irish, author, and 20 other speakers over the two days. These experts will be covering “everything you want to know and more” about high desert gardening. Registration forms will be available in next months’ newsletter or at the Cooperative Extension office after January 1st. For more information call the Cooperative Extension at 458-8278, Ext. 2141.

