



# 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—Water, Water, Water . . .

Someone once said that the three biggest problems faced by gardeners in the High Desert are water, water, and water. Last month I discussed one aspect of this problem: how to get water to the root zones of your plants. This month I want to take a look at the flip-side problem: how to keep from getting too much water to the root zone of your plants.

We are most aware of the critical role of water in the hot, dry months of late spring and early summer when we can't seem to pour enough of it on our plants to keep them alive. We watch them desiccate right before our eyes in the super dry air, and we yearn for the summer rains, knowing that the higher humidity, cooler temperatures, and abundant rainfall will make our gardens flourish. How ironic, then, that some of our most prized plants sometimes seem to languish in the rain and occasionally even die. It doesn't seem fair that a plant we carefully nursed through the dangerous dry season begins to die when life-giving rains begin to fall. What's happening?

You may be tempted to think that your plant has somehow grown allergic to

water during the long dry season or perhaps has fallen prey to some water-borne disease when the rains arrive. If plants have allergies—and I'm pretty sure they don't—they certainly don't develop an allergy to water. Although disease is always a possibility, another likely cause—and one that should always be investigated—is death by drowning. Our heavy clay soils, often liberally laced with caliche, can compact to a concrete-hard substance that is impervious to penetration by water. When we dig (or blast!) small holes in this stuff to create homes for our plants, we create sumps where rainwater collects and never drains away. The submerged roots of the plants that live in these holes become starved for oxygen and the plants die. So what's a gardener to do?

If you have a caliche problem, the University of Arizona College of Agriculture and Life Sciences has a [publication](#) just for you. The authors, Jim Walworth of the Dept. of Soil, Water, and Environmental Science, and Jack Kelly from Pima County Extension point out that in addition to creating

*(Continued on page 2)*

### Inside this issue:

|                              |   |
|------------------------------|---|
| Congratulations              | 2 |
| Cuttings 'N' Clippings       | 2 |
| Might as Well Laugh          | 3 |
| In a Desert Garden           | 3 |
| Renaissance Farming          | 4 |
| Mystery Plant                | 4 |
| Wives Tales, Snake Oil . . . | 5 |
| September Reminders          | 6 |



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(Continued from page 1)

water problems, caliche can restrict a plant's ability to use soil nutrients by reducing root penetration and creating a high pH environment. For this reason it is a good idea to keep plant roots out of contact with the caliche.

Caliche soils can be managed by breaking up and physically removing the caliche and back filling the hole with a good soil mixture. The authors suggest that holes should be 3 to 5 times the width of the root ball and just to the depth of the root ball trees. Before installing a plant, every hole should be checked for drainage by partially filling it with water and watching how fast the water level drops. About 1 inch per hour is an acceptable rate. If the hole does not drain properly, you need to either dig it deeper or at least punch some drain holes in the bottom.

If you have a heavy clay soil, you need to amend it so that it absorbs water and can better provide nutrients to your plants. Oregon State University has an excellent [publication](#) describing how to do this. The key is to work

in plenty of organic matter. An earlier [publication](#) from Oregon State also suggests adding sand, but the sand should only be added after the organic material so that you don't create natural concrete instead of garden soil. I mention this because I have personally had great success using sand as both a mulch and an amendment. Since organics decompose slowly to yield nutrients for plants, the best time to add the organic material to the soil is in the autumn.

When planting trees, however, remember that adding amendments to the planting hole is not recommended. The latest tree planting standards discourage this practice since it encourages the tree roots to circle inside the limited confines of the amended planting hole rather than spreading widely. Alternative solutions might include creating channels for water to drain away from the root zones or selecting trees that thrive in alkaline or compacted soils. For shrubs and smaller plants, raised beds are also an option.

Until next time, happy surfing.

Gary A. Gruenhagen, Master Gardener  
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## Cuttings 'N' Clippings

✧ The **September 6** CCMGA meeting will feature Tom Wood, Instructional Specialist, UA Cooperative Extension, Ft. Huachuca and Director and Naturalist from the Southeastern Arizona Bird Observatory. He will take us on a tour of the best places to see "hummers" in South America with a spectacular slide show of South American hummingbirds. We are rightly proud of our status as the top place in the U.S. to see hummers, but our neighbors to the south can easily top us. The meeting takes place at 5:00 p.m. in the Public Meeting Room on the UAS Campus. Contact Joyce at (520) 458-8278. Ext 2141 or [jwilliam@ag.arizona.edu](mailto:jwilliam@ag.arizona.edu) for information.

✧ Mark your calendar for **Sunday, September 9, 1:00—4:00 p.m.** when the 15<sup>th</sup> Annual Water Wise/Master Gardener Fall Xeriscape Tour will be held. For maps or information, contact Joyce at (520) 458-8278. Ext 2141 or [jwilliam@ag.arizona.edu](mailto:jwilliam@ag.arizona.edu)

✧ The Cochise County Fair will be held at the fairgrounds in Douglas on September 27—30. For information go to

[cochisecountyfair.org](http://cochisecountyfair.org)

✧ It's U-Pick Produce Season! For information and brochure go to

[www.willcoxchamber.com](http://www.willcoxchamber.com)



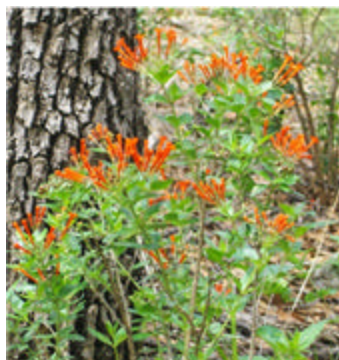
**Congratulations!**



Congratulations to the 17 people who recently completed the 2012 14-week University of Arizona Cooperative Extension Master Gardener Class. **Front row, L-R:** Frank McMullan, Jan Groth, Master Gardener/Instructor, Catalina Sanchez, Joy Jungles, Kevin Taylor **Middle row:** George Merrihew, Faye Douglas, Evelyn Green **Back row:** Christine Elving, Cyndy Fuqua, Tom Hanson **Not pictured:** John Denson, Bill Fitzgerald, Rosan Gruetzemacher, Ruth LeFever, CC Stober, Mark Williams, and Margaret Watson

## In a Desert Garden

### *Bouvardia ternifolia*



This is a plant better known in the houseplant nursery business than as a native

garden. *Bouvardia* grows right here in our mountains and can be easily adapted for our gardens. I saw some wonderful patches of this plant that hummingbirds love so much on hikes in Ramsey, Miller, and Carr Canyons.

*Bouvardia* is native to the canyons of southern Arizona, New Mexico, Texas and Mexico, but there are also strains in the tropics of this continent and in Europe. The tropical versions are the ones grown as houseplants. *Bouvardia* was named after Charles Bouvard, the physician of Louis XIII and superintendent of the "Jardin du Roi" in Paris, France.

*Bouvardia* is a small shrubby herb that grows to about 1.5 feet in height, and has shiny, deep green leaves that are evergreen in more temperate regions. The most impressive parts of this plant are the flowers which are just breathtaking. Big tubular trumpets grow in clusters on the tip of the stems, are orange-red, and very fragrant. They are a magnet for hummingbirds and flower from May through October. *Bouvardia* is best grown with afternoon shade in good fertile soil—under a mesquite would be a good place for it. In other parts of the world these plants flower in white, yellow, pink, and red.

Angel Rutherford, Master Gardener

## Might As Well Laugh...Again

Another summer is well in swing and the garden is full of weeds, powdery mildew has taken the cukes and the zucchini, and the grass is full of small grasshoppers that will soon prevent me from succeeding at growing a fall garden. Plus, when I walk through the grass, it's full of chiggers! I think it's time to take some time again to ponder some gardening humor and insights. I hope you enjoy the following quotes and thoughts.

An addiction to gardening is not all bad when you consider the other choices in life

-Cora Lee Bell

Knowledge is knowing that the tomato is a fruit. Wisdom is knowing not to put it in a fruit salad. -Unknown

Why is it raining everywhere except at my house?

-Every gardener in monsoon country

Adopt the pace of nature: her secret is patience.

-Ralph Waldo Emerson

When weeding, the easiest way to make sure you are removing a weed and not a valuable plant is to pull on it. If it comes up easily, it's a valuable plant.

-Unknown

There is no gardening without humility. Nature is constantly sending even its oldest scholars to the bottom of the class for some egregious blunder.

-Alfred Austin

The knee is a device for finding rocks and goatheads in your garden. -Unknown (Ungloved hands

work well for finding goatheads as well.)

An idealist is one who, on noticing that a rose smells better than a cabbage, concludes that the rose will also make better soup. -H. L. Mencken

A seed catalog is a work of fiction with fantasy photos.

-Unknown

My green thumb came only as a result of the mistakes I made while learning to see things from the plant's point of view.

-H. Fred Ale

Look deep into nature and then you will understand everything better. -Albert Einstein

Do what we can, summer will have its flies.

-Ralph Waldo Emerson

The philosopher who said work well done never needs redoing never weeded a garden.

-Unknown

If we cantaloupe, lettuce marry.

-Just plain sad

The Idaho potato Mom & Dad were upset that their daughter wanted to marry Walter Cronkite since he was just a commentator.

-Old joke, also just plain sad

You know that old saw that goes, "as ye sow, so shall ye reap"? It ain't true.

-Bill Schulze

Happy gardening!

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Cochise County Master Gardener  
Newsletter Editor  
Carolyn Gruenhagen



## Renaissance Farming

Many changes occurred during the Renaissance period. Between the 14<sup>th</sup> and 16<sup>th</sup> centuries the world saw changes in art, music, architecture, and philosophy. These things paved the way for the future. Changes in agriculture during this time not only improved ways of farming but also its production. This in turn affected not only farmers but large cities that depended on these crops for their survival.

Previously, strip farming and fallowing was used to keep crops growing efficiently and successfully. During the Renaissance, cross plowing was used to improve yields. Cross plowing is when farmers plow their fields across an earlier plowing in a perpendicular fashion. This allowed more ground to be exposed for planting which in turn produced a higher yield. One crop that was heavily produced during this time was alfalfa. Growing high yields of alfalfa gave cattle and other livestock more food to eat which produced more manure that could then be used for fertilizer. The nitrogen contained in alfalfa green manure allowed farmers to fertilize their plants instead of leaving a third of their fields fallow in order to rejuvenate the soil.

During the Renaissance period farmers were also able to farm more land than before due to improved irrigation and machinery. They could now control the amount of moisture to their crops which lessened the impact of weather on production. Increased production enabled the farmers to supply cities that desperately needed food. This influenced the growth, intellectual, and artistic production of the residents living

in those cities. As these cities grew in size the relationships between rural farms and suburban meccas also improved because these farms provided all the food and agricultural products they needed. Farm laborers worked on farms but also helped with other services such as repairing roads that they used to deliver excess goods to the cities nearby.

Grain was still a staple crop in most areas, with wheat being predominant. Rice was also grown in large quantities due to the global exchange between China, India, and the New World. New crops such as tobacco, maize, and potatoes were introduced from the New World during this time. Tomatoes were also introduced strictly as ornamental plants since they were considered poisonous at the time. Cortez discovered the tomato in the garden of Montezuma in 1519 and brought the seeds back to Europe. There the French botanist Tournefort gave the tomato its botanical name *Lycopersicon esculentum* meaning wolf peach because it was round and juicy like a peach but considered dangerous like a wolf. The word tomato really comes from the Spanish word tomate which originated from the Aztec word tomatl. Italy was the first to embrace and grow this luscious fruit for eating and ever since it has been used in food. With the introduction of new plants and farming practices we can clearly see how the Renaissance really was a rebirth that paved the way to the Enlightenment.

Next month: The Age of Enlightenment

Stephanie Blanchette  
Associate Master Gardener

## Mystery Plant



A friend of mine sent me these photos of a “weed” that is growing in his yard and asked if I could identify it. I recognized it immediately as the same plant I have growing rampantly in my own yard. It has tender, fleshy leaves and stems, tiny flowers, and a large, tuberous root. Because of the tender stems and large root, it is almost impossible to pull out of the ground in one piece. But...I didn’t have a clue as to its name, so I sent the pictures on to University of Arizona Cooperative Extension Water Wise Program Coordinator, Cado Daily, and got an immediate response. She identified the plant as *Talinum paniculatum* (AKA Flameflower or Jewels of Opar).

Although in Master Gardener parlance it is a “plant out of place” (i.e., a “weed”) in my yard, some people actually cultivate it. It is a perennial related to portulaca, is drought tolerant, and self-seeding, and according to one website it may be invasive (an understatement to say the least!).

Gary Gruenhagen, Master Gardener

## Wives' Tales, Snake Oils, and Gardening Myths

*(Note: At the Southwestern Low Desert Landscaping and Gardening Conference held August 11, 1995 at the Arizona Biltmore Hotel in Phoenix, Cochise County Extension Agent, Robert E. Call gave a presentation entitled Wives Tales and Snake Oils. He added Gardening Myths to the title. The following are some of the myths excerpted from the January 1996 Cochise County Master Gardener Newsletter based on his presentation.)*

**Myth #1: Wives' tales are information passed down through generations and may have a grain of truth.** There are many wives' tales which at one time might have contained some truth, but over time become so distorted that they are pure fiction. I'm sure that everyone can think of a wives' tale. My thought is why are there no husband tales?! I did an Internet search to view some wives' tales from different parts of the country. Here are two of the better responses that I received:

There is an important feature about sowing parsley. It has to be sown by the head of the household or it is very unlikely to grow at all. So, get out and put it in the ground before your husband is up! Not that there could be any dispute on this point, but better be on the safe side.

From Virginia, "I recently gave a new neighbor in rural Virginia some camellias, but she said she could not thank me. If "thanks" is expressed for a gift plant, the plant will die."

**Myth #2: Snake Oils are materials that are supposed to enhance plant growth or control pests.** Many products are marketed or are traditional remedies that are said to have value. When placed under scientific scrutiny, little if any response is observed. Granted there are things that cannot be measured scientifically, however when products claim to produce growth responses they should be measurable. One product that has been tested is the root stimulator B-1. When tested against other compounds it turned out the small amount of fertilizer in some B-1 preparations is what produces the growth response. B-1 in and of itself was no better than water in producing growth responses. This research was conducted at the University of Arizona by Elizabeth Davison and the late Dr. Jimmy Tipton. The late Dr. Norm Oebeker, Arizona Vegetable Specialist, Emeritus, said that when he was a graduate student at Cornell University in the late 1950s, B-1 was tested and found to produce no growth response in plants. However, B-1 continues to be sold.

Ultrasonic flea killers for pets do not kill, repel, affect jumping rates, or interfere with reproduction or development of fleas. This work was done by Dr. Michael Dryden of Kansas State University. These are only two of the many products making claims that do not perform as expected.

Some interesting home remedies were suggested when I inquired on the Internet. Here are some of them-

San Juan Capistrano, CA: Society garlic planted around roses or other aphid susceptible plants will keep aphids away. The reason is that aphids are defended and moved by ants and ants cannot stand the smell of garlic. My question is, "can ants smell?"

From North Carolina: Chewing tobacco plus dish soap in water will keep insects in check. Boil the chewing tobacco (gross) with water and strain so the sprayer will not clog. Add dish soap. Use as an insecticide. My question is, "how much soap and tobacco in how much water?"

Bay leaves in flour bins are used to keep roaches out. This was found ineffective by Dr. Mike Rust. I ask, "Why not use a lid?"

Mix one clove of garlic, one onion, one tablespoon of cayenne pepper, and one quart of water. Steep for one hour, add a tablespoon of liquid soap and spray it around the house for ant and roach control. "My question is, "How often does this material need to be applied?"



*(Continued on page 6)*

Don't miss the *Water Wise* and Cochise County Master Gardeners

# 15th Annual Fall Xeriscape Tour



## Sunday, September 9 1 to 4 p.m.

Beautiful low water landscapes in the Sierra Vista area will be open to the public for this self-guided tour.  
Cochise County Master Gardeners will be at the sites to answer questions and point out the features of each landscape.

For a map to this *free* tour, call *Water Wise* at 458-8278 x 2141 or email [jwilliam@ag.arizona.edu](mailto:jwilliam@ag.arizona.edu)

 COLLEGE OF AGRICULTURE AND LIFE SCIENCES  
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Cochise County

[waterwise.arizona.edu](http://waterwise.arizona.edu)



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(Continued from page 5)

Sugar and yeast mixture for killing houseflies attracted more flies than it killed.

Spearmint gum, used for mole and gopher control, was found useless by Bobby Corrigan, Purdue University.

Plaster of Paris in rat baits changed the color of rodent droppings to light gray and nothing more, according to Dr. Bill Jackson, Bowling Green University. However, it caused sore rat rectums!

**Myth #3: Gardening is hard work.** It turns out more work is done in most gardens harvesting than all other activities combined. Time harvesting, in relationship to other gardening activities, increases as the size of the garden increases. This study was done by Dr. Michael Stevens and other researchers at Brigham Young University. They timed the various activities of planting, weeding, harvesting, and miscellaneous work in 4 x 4, 10 x 10, 20 x 20, and 50 x 50 foot gardens throughout a growing season. The time spent harvesting is more enjoyable and passes more quickly than the work of preparing for planting, weeding, and other activities.



## September Reminders

- ✿ Keep on watering!
  - ✿ Plant cool-season flowers and veggies
  - ✿ Start shopping for bulbs
- (The bulletin *Bulbs for Southern Arizona* is available from the Cooperative Extension offices or on line [here](#))