



# 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—Rain Log

How would you like to be a part of a major University of Arizona research project that will help manage our scarce water resources?

SAHRA—Sustainability of semi-Arid Hydrology and Riparian Areas—is a University of Arizona-sponsored organization that has the mission of conducting research to fill gaps in the knowledge required by managers and policy makers to effectively manage our water resources. One of the current SAHRA research programs is focused on finding out where the rain really falls in Arizona, and that's where you can come into the picture. The organization is recruiting volunteers to install rain gauges in their yards and report how much rain they receive. Reporting is done electronically to a Web site at [rainlog.org](http://rainlog.org).

We all know how spotty rainfall can be here. Most of us have probably experienced a rainstorm that wets one side of the street and not the other. Are there persistent patterns in this spotty rainfall? Are there some localized areas that consistently get more or less rain? If water managers knew there were persistent patterns in rainfall they might be able to design more effective and efficient ways of harvesting the rain and managing runoff. One of the purposes of the SAHRA project is to determine if such patterns exist.

If you volunteer to be a rainfall logger, you can use almost any of the rain gauges commonly sold in hardware stores and garden shops for the project. If you don't already

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have one, you can even buy a Tru-Check® gauge directly from the rainlog.org Web site. The Tru-Check® is a wedge-shaped, heavy plastic gauge that allows you to read accurately small amounts of rainfall and costs \$12.00 if purchased online from them. Alternatively you can use a high-tech, electronic tipping gauge that costs many times that amount. I have both a Tru-Check® gauge and an expensive tipping gauge that is part of a complete weather station. Interestingly I have found that the Tru-Check® is more accurate than the more expensive tipping gauge. It appears that the tipping gauge cannot cycle fast enough during a very heavy rain so it gives a lower reading.

If you don't have the time or interest to participate as a rain-logger, you can sign up to receive a report via e-mail of the rainfall within five miles of your area after every storm. These show a map of the area around your location annotated with the amounts of rainfall reported by rain-logger volunteers.

The program has only been in operation for a couple of years but the number of rain loggers has been growing steadily. The total number of loggers statewide is now over 1000, according to the rainlog.org Web site, with 141 in Cochise County alone. Over half of those in Cochise County are in the Lower San Pedro Valley. The local support for the

project can largely be attributed to concerns over the future of the San Pedro River and the enthusiasm of Cooperative Extension's *Water Wise* program at the University of Arizona South.

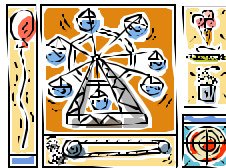
If you would like to find out more about the program or, even better, volunteer to become a rain logger, check out the Web site at <http://rainlog.org/usprn/html/main/maps.jsp>. There you will find background information about the project, maps showing rainfall and the distribution of rain loggers, links to media stories about the project, and a form to sign up for the program.

Until next time...Happy Surfing.

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## September Reminders

- ◆ Keep on watering
- ◆ Best time to plant container plants
- ◆ You can always plant something—try cool season veggies
- ◆ Stat shopping for bulbs (*Bulbs for Southern Arizona* bulletin is available from the Cooperative Extension offices)



**Cochise County Fair**

September  
20—23

Douglas Fairgrounds

Fair books are available at the Cooperative Extension Offices.

## Did you know?

In case you've missed all the chatter, single-use water bottles are falling from fashionable to frowned upon. The drink-and-toss containers are getting slammed and banned by environmentalists and people who worry about oil dependence and global warming. It's not just the plastic, which, yes, can be recycled (although according to the Container Recycling Institute, eight out of ten bottles aren't). It's the fossil fuels that are used to make and transport those plastic bottles. *Every year, making water bottles for the U.S. requires more than 1.5 million barrels of oil, according to the Earth Policy Institute—which is enough to fuel 100,000 cars.* So, what's happening? Last month, the mayor of San Francisco banned disposable water bottles in municipal offices. And now a campaign called "Refill Not Landfill" is urging us all to sign a pledge that we'll go without water bottles for a week, a month or a year. Instead purchase reusable water bottles that you fill and refill with tap water.

**Source:** Article taken from *McClatchy Newspapers* written by Alyson Ward

*Robert E. Call*

Robert E. Call  
Extension Agent, Horticulture

Carolyn Gruenhagen  
Editor

## Helpful Hints For Fall Planting

Now is the time to add to or to establish a beautiful landscape with trees and shrubs.

Fall is the best time to plant potted or burlap/balled plants. Soil temperatures for several months will be warm enough for root establishment and growth. This will give the plants a head start for leaf and shoot growth the following spring.

Fall planting gives trees and shrubs a chance to establish deep roots before they have to endure the stress of summer. This will reduce the amount of water they will need to survive during the hot months.

Perennial flowers also do well if planted in the fall. The extra growing time will help flowers root in well, and they will last twice as long as those planted in the spring. October is also the month to sow wildflowers.

New planting standards have been developed from many years of research. The following describes the proper way to plant trees and shrubs.

Mark an area three to five times the diameter of the root ball. Till or dig this area to the depth of the root ball. Many people like to add sulfur to lower soil pH and/or nitrogen or other fertilizers at planting. While the efficiency of these practices is unproven, moderate amounts are unlikely to harm the plant. Spread the chosen products over the entire area and till in. Tilling the soil improves aeration and encourages lateral root growth.

In the center of the tilled area, dig a hole slightly larger than the root ball but no deeper. A shallow hole prevents sinking of the plant and trunk burial. Make sure the "wall" between the tilled and untilled soil is rough or slightly sloping. Rough walls provide roots with better opportunity to penetrate the interface between tilled and untilled soil.

Remove the root ball from the container. Always handle the plant by the root ball, never by the trunk. Roughen the surface of the root ball and cut encircling roots. Set the plant in the planting hole with the top of the root ball at or slightly above the surface to avoid trunk burial.

Backfill with unamended soil. Do not pack the backfill, which when done, retards aeration. Do not prune unnecessarily. Remove only damaged or infested branches. Wait until the tree is established to begin training.

Mulch the entire tilled area with an organic material to a depth of three or four inches. Keep mulch away from the tree trunk to avoid burying the trunk. Depending upon how the tree is going to be irrigated, the mulch may be applied before or after the initial irrigation.

Stake trees only if necessary because staking functions as crutches to hold the plant upright. Use at least two stakes placed outside of the root ball at right angles to the direction of the strongest winds. Hold the trunk

and bend the canopy to one side. If the canopy does not return to an upright position, move farther up the trunk and try again. Find the lowest point on the trunk where the canopy will return to an upright position. Place ties about six inches above this point. One set of cross ties is best.

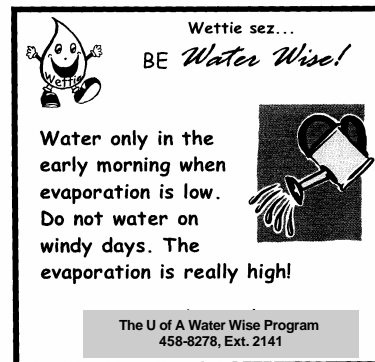
If using wire, shield the trunk from the wire by placing it through short pieces of garden hose. Cut off the tops of the stake well below the canopy to prevent limbs from rubbing the stakes.

If you construct an earth basin around the tree or shrub, place berms just outside of the root ball. This forces water through the root ball. Irrigate the entire tilled area. Water will settle the backfill soil without restricting aeration.

For publications on this topic and other information, contact the University of Arizona Cooperative Extension Office, Water Wise Program.

*Cado Daily*  
*Water Wise Program*

*(Reprinted from the September 2001*  
*High on the Desert Newsletter.)*



## Cruising with Flowers—Part II

In Part II we continue our trip to Barbados in mid-April celebrating our 40<sup>th</sup> wedding anniversary.

The primary export of Barbados is rum made from the sugar cane grown on the island. Crop alternating is practiced to keep the soil fertile. Fields are also allowed to lie fallow for a season or two. The non-usable pieces of sugar cane, as well as coconut hulls, are used as mulch and organic matter. Coconut hulls are also pushed into the soil to border flower beds, prevent erosion, and shade delicate new shoots. Bananas are also grown and harvested commercially on the island. Bananas grow just one crop a year after which the trees are chopped down. The suckers then become the next crop. After three to four years the fields need to be replanted.

There are very few fences on the island, so most families stake their sheep (which look more like goats), and let their fowl run wild. There are a few pigs, horses and cows. The islanders eat lamb, chicken, and fish; hardly any beef. A McDonald's opened on the island, and closed in thirteen months, after everyone had had a taste. The primary side dish is a combination of rice and yellow peas which they usually grow themselves. Home vegetable gardening is widely practiced and encouraged by the government. Most home gardens are supplemented by fruit and citrus trees. Each plant that they cultivate is useful for many purposes, and they try not to waste anything. They grow pumpkin, sweet

potatoes and yams, and eat plantain, beets, and many other root crops. They say they don't eat very spicy food, but what I tasted was plenty spicy. They grow many kinds of peppers, beans, peas, onions. Much of their foliage and producing crops have been imported from South America, Africa, and the Far East. Examples would be the mahogany tree from Honduras or the breadfruit brought by Captain Bligh from Tahiti. The national tree is the calabash. They use the gourds from the tree for baskets, bowls, dishes, planters, and many other things. The nutmeg tree also grows there. It is used for its spice, but the skin is also used in making marmalade and jelly. There are banyan trees, the tamarind, and a tree called "dunks" which I haven't been able to identify. The Barbados cherry is an ornamental and the cocoa tree is called the jungle M&M.

As you would expect, there are many palms on the island, including the coconut, windmill, dwarf cabbage, and fan. What we call the royal palm is called the politician palm there because it grows fast and crooked and doesn't produce anything!



*Caesalpinia pulcherrima*

The national flower is the *Caesalpinia pulcherrima*, the 'Pride of Barbados,' or the 'Red Bird of Paradise,' which we also grow here. They grow the desert rose which we also grow, the blue lotus, which is a ground cover there, and the *kora*, with orange yellow flowers, which needs acid soil. It can be grown here in pots in a greenhouse. They use many plant remedies for their ailments. Aloes, including the Barbados aloe, also called medicinal aloe, is widely grown and used. It is also exported for use in the perfume, makeup, and the deodorant business. There are many spineless prickly pear cacti. In one yard, someone had written on the pads, causing permanent damage to the cactus. There is an interesting plant on the island with bright reddish leaves called Dragon's Blood.

Some people cannot afford to buy land, so they rent or lease. Houses on block or coral foundations are on land which does not belong to them, so they must be ready to be moved. Houses, especially shops or apartments, are painted, generally in pastels, to match or blend with the foliage around them, giving the eye pleasant views on every side. Almost every house has its bougainvillea in maroon, red, orange, yellow, or white along with *Nerium* oleander which becomes leggy and has few flowers in shady areas. Red honeysuckle drapes over walls and sometimes trees.

Because it is part of a rainforest, there is lush vegetation everywhere on the island. Although there is

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## The Agent's Observations

**Q** Is there an herbicide to remove grasses that are growing in and around cactus plantings? It is a real pain pulling out weedy grasses, while trying not to get poked by the cactus spines!

**A** There are herbicides available for use in landscapes that will kill grasses and not harm broadleaf or dicot plants. The common names, (those that are in small print on the label), are sethoxydim and fluazifop-p butyl. Several different companies market and sell these herbicides under various trade names. Pesticides can be named anything the companies feels will sell the product. That is why it is best to look for the active ingredients on the label. Some formulations are most effective when applied in conjunction with a "crop oil concentrate," specifically made for these two herbicides. This is a special surfactant that makes these herbicides work better by aiding leaf surface penetration. Some manufactures include surfactants in their products. Others will require the separate purchase of the crop oil concentrate. **Always follow the label directions** and be patient. It takes up to three or four weeks for treated grasses to die when using these products. I have had good success killing Bermudagrass in thick rosemary plantings using these

products. It took a couple of treatments however, because it was Bermudagrass!



Alternatively use glyphosate, (RoundUp®). When using a sprayer, shield the cactus with buckets or pieces of cardboard. If glyphosate is absorbed by green tissue it can be translocated to the roots and cause plant damage. Perhaps a better approach is to put the mixed spray solution in a bowl and apply it using a long handled paint brush, sponge or wiper to the grasses.

**Q** What type of fertilizer should I put on my lawn? I have Bermudagrass in the front yard and tall fescue in the backyard. I need to re-seed some bare spots in the backyard. When should I do this?

**A** The only fertilizer element needed for good lawn growth in Southeastern Arizona is nitrogen. **Do not** apply nitrogen fertilizer to Bermudagrass in the fall, because it's a

warm season grass and this will promote growth. It will be going dormant soon, when night time temperatures consistently drop below 60-65° F. The time to fertilize Bermudagrass is in the spring and summer. Fall is a great time to fertilize tall fescue and other cool season grass. These include Kentucky bluegrass and perennial ryegrass. The other time to fertilize cool season lawns is in the early spring. This is also the best time of year to seed cool season grasses.

The least expensive source of nitrogen is ammonium sulfate (21-0-0). Other complete lawn fertilizers, (those containing nitrogen, phosphorus and potassium) can be used with no ill effects. They are more expensive because of the added ingredients and don't do much for lawns in SE Arizona. Apply  $\frac{3}{4}$  to 1 pound of actual nitrogen/1,000 ft.<sup>2</sup> of lawn in mid-September and again in mid-October. (Example: 0.75 to 1 lb.  $\div$  21% = 3.6 to 4.8 lbs. out of the bag.) For further information on turfgrass care a newly revised publication entitled, *Lawn Care for Cochise County*, is available through Cochise County Cooperative Extension Offices.

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some rain all year long, the monsoon season is from June to November, similar but rainier than ours from July to September. Water for the islanders is filtered through the limestone and coral which comprises the island and pumped from wells to homes. Many of the homes also have cisterns in which they collect rainwater for household and garden use. Their water is considered the purest in the Caribbean.

Barbados has many things to offer, and is worth a trip just to see the flowers

*Jacqueline Jones*  
Associate Master Gardener

## Cuttings 'N' Clippings

\* The next CCMGA meeting is 5:00 p.m. Thursday, September 6, 2007, Room 508 at the University of Arizona South Campus.

\* On Saturday, September 1, there will be a wildflower walk led by Cochise County Herbarium botanists. Meet at the Cochise County Herbarium (located on the University of Arizona South Campus) at 8:00 a.m. and bring water and a snack. A small donation is requested and will be used to support the Herbarium. For more information, call Joyce at 458-8278, Ext. 2141 or Cecile Lumer at 432-4294.

\* On Sunday, September 2 the fall self-guided Xeriscape Tour will be held from 1:00—4:00 p.m. When you visit these yards, you will be astonished at how much choice you have in creating your very own water wise yard. The tour is sponsored by *Water Wise* and the Cochise County Master Gardeners. Docents will be at each yard to answer questions and plant lists will be available. For more information or to obtain a map contact Joyce at 458-8278, Ext. 2141. Two of the yards belong to Master Gardeners.

\* The Sierra Vista Gardeners Club will be holding its annual Fall Plant Sale on Saturday, September 15 from 8:00 a.m. to noon at the Bisbee Farmer's Market in Vista Park. Perennials, trees, shrubs, herbs, bulbs, houseplants and cacti will be for sale.