



The Virtual Gardener — Got rain?

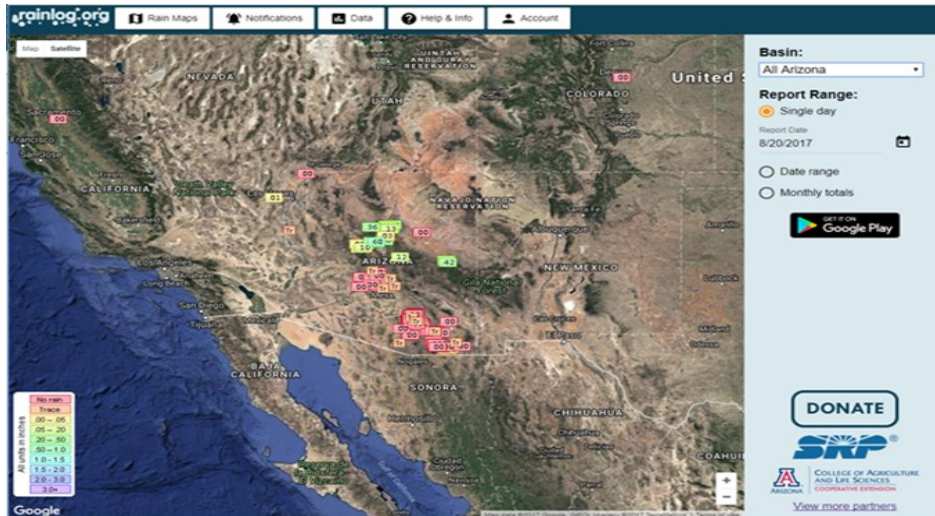
How much rain did you get last night? This is a favorite conversation starter in Arizona at this time of year. We never tire of comparing notes with our neighbors and bragging or complaining about rainfall amounts we receive during the monsoon. In his *Good Morning* column of August 10 in the *Sierra Vista Herald*, Opinion Editor Eric Petermann asked essentially the same question and complained that the “official” rainfall value for Sierra Vista reported by the National Weather Service (NWS) did not fairly characterize monsoon precipitation for our whole area.

Petermann was correct. The single value for rainfall in Sierra Vista or any other community reported by the NWS does not accurately describe the monsoon rainfall. Unlike winter rains that are often widespread and consistent, the summer rains are spotty and unpredictable.

But lots of data on the summer rainfall are publicly available if you know where to look for them. One excellent source is on the website of the University of Arizona’s Rainlog project. This project began over a decade ago and has collected data from volunteer rain

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loggers all over the state. [Check out my [article](#) in the September 2007 issue of this newsletter for a little background on the project.] There are now over 100 Rainlog volunteers right here in Cochise County. Each volunteer reports daily rainfall amounts through an online data entry form. These data are immediately available for public viewing on the Rainlog website in map, graphical, and tabular formats. Rainfall amounts for individual reporting stations can be seen for single days or as sums over different periods of time or the same data can be displayed for all stations on a map. Let's take a closer look at how to do this.

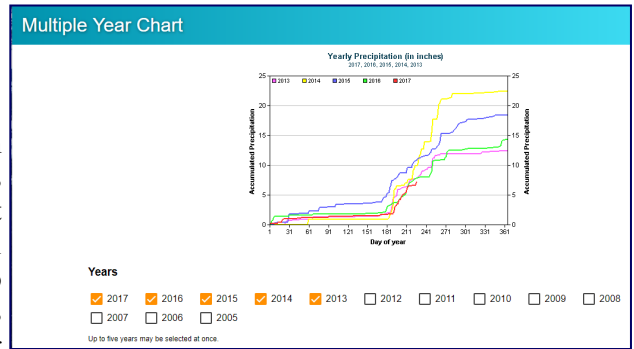
The Rainlog [website](#) opens to a map of Arizona displaying all the reporting stations as little rectangles showing the current day's reported rainfall. Note that the rectangles are color-coded by amount of rainfall reported according to a legend in the lower left corner of the page. You can opt to view the map in standard map view or as a satellite image by using the control in the upper left corner of the page.

A drop-down menu in the upper right corner of the page allows you to move the map to specific areas. Choose **Upper San Pedro (Sierra Vista)** to view the map for our area. At the default zoom level, the labels for the reporting stations will likely be crowded and overlapping. This can be remedied by zooming in with the plus/minus zoom control in the lower right corner of the screen. You can actually zoom in to see the exact property where the rain gauge is located.

The default view on the map shows readings for the current day, but clicking on the small calendar icon next to the report date allows you to view data for another single date. The map will instantly update when a new date is selected. If the data being displayed is for a single day for which no rain was received, you will likely not see all of the reporting stations. This is because not all observers record "zero" days when they occur but wait until they have a positive value to input before updating the zeros.

Totals for date ranges can also be displayed. By clicking on **Monthly totals** you will be given drop-down menus to select the totals to be shown for a given month and year. And again the map will instantly update when the selection is made. If you select the **Date range** option, you will be able to select a starting day, month, and year and an ending day, month, and year and view the totals reported for that period. For example, you can see last year's monsoon totals by selecting June 15, 2016 as the starting date and September 30, 2016 as the ending date.

Double-clicking on one of the station rectangles will show you a small box with a graph of rainfall to date for the current year for that station and the latitude and longitude of the station location. Clicking inside the box will show a full page with an enlarged graph and a tabular display of daily entries for the year to date.



Clicking on the link labeled **Multiple Year Chart** (see chart above) will bring up a page showing a graph of accumulative annual totals for up to five years at once. The years available for selection range from 2005 to the present year.

If you would like to contribute to the Rainlog project rather than just viewing their data, I encourage you to get a rain gauge and become a rain logger. Instructions for joining the system are found on the website under the **Help & Info** menu.

Another source to explore for weather and rainfall information is [Weather Underground](#) which reports extensive data, current and historical, from personal weather stations all around the world. As of this writing there are 49 such stations listed for Sierra Vista.

And finally, if you are still not satisfied, check out the National Weather Service Community Collaborative Rain, Hail, & Snow Network ([CoCoRaHS](#)) volunteer reporting network for rainfall amounts. There are about a dozen volunteers for this program here in Sierra Vista.

Hopefully I have given you enough data sources for rainfall to keep you occupied for the next month.

Until next time, happy surfing!

Gary Gruenhagen, Master Gardener
virtualgardener@cox.net

September Reminders

- ◆ Keep on watering!
- ◆ You can always plant something—try cool season veggies
- ◆ Start shopping for bulbs

Autumn - The Prime Planting Season!

The best time for planting the majority of our native and desert adapted plants is quickly approaching. Fall! Yes, Fall is the best time of the year for planting most of your favorite trees, shrubs, perennials, groundcovers and vines. This is a perfect planting time for many reasons:

1. The soil is still warm. New plantings can use their energies for root growth to become established over winter. Then, in spring, they focus on new growth, rather than having to “catch their breath” from just being planted right before a long duration of winds and heat.

2. The air is cooling down and new plantings require less water on a continual basis to get started.
3. Autumn plantings have to deal with fewer pests and diseases than in the hotter months.
4. Best of all, the autumn days offer cooler temps for US! It’s a glorious time of year to be outdoors in your gardens during the Fall in the High Desert!

Be sure to put Saturday, September 16 on your calendar for the 3rd Annual Master Gardener Fall Plant Sale!

*Jan Groth, Master Gardener
Program Coordinator*

*“Love is the flower
of life, and
blossoms
unexpectedly and
without law, and
must be plucked
where it is found,
and
enjoyed for the
brief hour of its
duration.”*

- D. H. Lawrence

3rd Annual Fall Plant Sale Coming Up!

The 3rd Annual Master Gardener Fall Plant Sale is set for Saturday, September 16 at the University of Arizona Sierra Vista campus, featuring a wide variety of native and desert adapted plants for autumn planting.

The Plant Talk on the growth and care of each of the native and desert adapted plants for sale will be 8:45 AM to 10:00 AM. The Plant Sale will then begin at 10:00 AM and continue through 2:00 PM,

The Plant Talk and Sale activities will take place in the new Discovery Pavilion in the Discovery Gardens for the first time this year. The Plant Sale will feature a wide variety of trees, vines, shrubs, perennials, cacti/succulents, and groundcovers for your gardening delight.

As always, all proceeds from the Plant Sale will benefit the Discovery Gardens at the UA Sierra Vista. We have come a long way in the last year in development of these demonstration gardens, which feature a large variety of plantings in numerous theme gardens, all with pollinator concepts running throughout. The new Edible Gardens have shown off their abundant tomatoes, peppers, squash, eggplant, and herbs to our Garden visitors this summer.

Come to the Fall Plant Sale. Add another favorite plant to your garden! And, also know you’ll be contributing to the work in the Discovery Gardens, Sierra Vista’s newest botanical demonstration garden!

*Jan Groth, Master Gardener
Program Coordinator*

REMINDER . . .

Know what’s
below. Call

811

before you dig!

30 Great Landscape Plants for Fall Planting

This list and the description of the plants was compiled by Jan Groth, MG Program Coordinator and Jodi Sharp-Webb, Master Gardener. You can find it here: [list](#).

Adeniums

Plants with the common names Desert Rose, Karoo Rose, Impala Lily, or Sabi Star are all members of the genus *Adenium*, a group of interesting, unusual plants collectively called adeniums that make superb collector's specimens. The various adeniums are all similar in that they produce attractive flowers and fat stems at their base (called the caulex). Their swollen, twisted stems and large bright flowers are eye-catching. All adeniums originated in the hot dry regions of Africa, the Arabian Peninsulas, and the islands of Socotra in the Arabian Sea.

Adeniums have acquired an undeserved reputation for being temperamental and slow-growing, but according to the Tucson Cactus Society, they are, in fact, fast-growing and easy to maintain when given proper care.



Photo: bonsai.westpacific.us

Adeniums grow well in southern Arizona from March through October, but have no frost tolerance and must be protected whenever cold temperatures are expected. In Cochise County, adeniums are best planted in pots so they can be moved from outdoors in the summer to the indoors for the winter.

Water adeniums well during the growing season of April through September. Water them enough to saturate the soil and allow a small amount to leach through which also helps to avoid salt build-up.

Treat them as if they were tropical plants during the warm months, keeping the soil evenly moist. However, once winter dormancy first begins to set in, it is essential to pull the water way back and treat adeniums as a desert plant, allowing the soil to dry between waterings.

You'll want to cover the soil surface with gravel mulch. This gives an appealing appearance, and more importantly, reduces water loss from the soil during the warm months.

Adeniums come from tropical regions where the light intensity is similar to that of the Sonoran Desert. In the Southwest, when you move your adenium out of the home into the outdoors in March-April, you should start in a shady area and gradually move your adenium to full sun in order to slowly acclimate the leaves. Good sunlight helps develop the beautiful flowers, but late afternoon sun should be avoided at all costs.

Adeniums can tolerate our high summer temperatures outdoors. However, when temperatures are very high, special care should be taken to avoid excessive exposure to direct sun in the afternoon and watering should be monitored very carefully.

Adeniums respond well to regular feeding during the growing months with a balanced fertilizer such as 20-20-20. Inadequate feeding and watering are the primary reasons adeniums struggle. Aphids, mealy bugs, and mites are pests which might be encountered.

For more information on these fascinating plants, visit : tucsoncactus.org as they have excellent, helpful information.

Cal Kelley, Master Gardener

Cuttings 'N' Clippings

✿ The next CCMGA meeting will be on Thursday, **September 14 at 2:00 PM** in the Discovery Gardens, UA Sierra Vista. B.J. Searcy will be discussing mesquite bean flour milling and processing. For information contact Valerie at: valeriedavidson@email.arizona.edu or the Cochise County Master Gardeners web site at:

<http://cals.arizona.edu/cochise/mg/>

Postponed to October 28

✿ Water Wise will be holding the next free workshop on **Saturday, September 9 from 9:00—noon** at the UA Sierra Vista. Dr. Janick Artiola, UA Water Quality Specialist and Gary Hix, former President of the Arizona Water Well Association will present the Arizona Domestic Well Owner's Workshop. Contact the Cooperative Extension at 458-8278, Ext. 2141 for more information. Check out the Water Wise web site for their 2017 schedule at:

<http://waterwise.arizona.edu/>

✿ Remember every Wednesday, plant clinic and seed library in the Discovery Pavilion 11:00 AM - 2:00 PM. Everyone welcome!

✿ Be sure to visit the 3rd Annual Master Gardener Fall Plant Sale set for **Saturday, September 16**. More on the plant sale on Page 3.

✿ The Cochise Chapter of the Arizona Native Plant Society will resume meetings in October. For more information, follow AZ Native Plant Society on their web site: <http://www.aznps.com/chapters/cochise/cochise.htm>

Very Very Verbena



Verbena gooddingii
Photo: University of California

I love Verbena. Verbena makes me happy. I enjoy those little purple flowers dancing on what could otherwise be considered somewhat of a weed. I enjoy its low-maintenance lifestyle. And I most enjoy the way it just pops up in unusual places in my yard from year to year and makes me smile. Verbena is drought resistant and can stand our full Arizona sun. It needs heat to thrive and is a fast grower. Beautiful in a butterfly garden, it is also a hummingbird favorite and displays color all summer. It is best started from seed. The hybrids are rarely hardy plants.

Verbena arizonica is a member of the *Vervain* Family (*Verbenaceae*), along with lantana, another colorful favorite of mine. There are 250 species in the *Vervain* family. Verbena's cheerful flowers are found in disturbed soils

around cattle tanks, sumps and bottomlands, also mesas and rocky slopes. It is also quite lovely and happy in parking strips, along driveways and on dry banks, walls, and crevices. *Verbena macdougalii* grows from Wyoming to western Texas, Arizona, and New Mexico. Throughout the desert Southwest you find it at the higher elevations (5,000'-8500'). Verbena ranges from small, low-growing annuals or perennials to 4' perennials. Some of our native Desert Verbenas include *Verbena pulchella* (known as Rock Verbena, Moss Verbena, or Mock Vervain), Goodding's Verbena (*Verbena gooddingii*), New Mexican verbena (*V. macdougalii*), Prostrate verbena, and Bigbract verbena (*V. bracteata*). These are all varieties of my friendly little purple flower.

And while we're discussing names, it's good to note that the botanicals "powers-that-be" have re-

named the genus of Verbena. They're now calling the genus *Glandularia*. But isn't Verbena just a prettier name?

Verbena has long been linked to the divine or supernatural. It has been known as the "tears of Isis" (an ancient Egyptian goddess) and "Hera's tears" in ancient Greece. In early Christian lore it was thought to have staunched the blood from Christ's wounds, and was known as the "holy herb," or in Wales, the "Devil's Bane." In the 1870 book, *The History and Practice of Magic*, its antiseptic capabilities are mentioned along with its protection against spells. In the Southwest, Pawnee shamans have adopted its use as a spiritual enhancer and dream divination. A mixture of Verbena is also a source of the bright green liqueur, *Verveine*, produced in Le Puy-en-Velay area of France. My French friend tells me that as a child she was given a tea of Verbena before bedtime to promote digestion and sleep.

Verbena has some other interesting medicinal uses as well. It is one of 38 plants used in Bach's Flower Remedies, a popular herbal treatment and in various teas. Its upper herbaceous stems and leaves can be dried for tea or made into a fresh herb-age tincture to treat fevers, indigestion, stress headaches, or

(Continued on page 6)

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anxiety. Verbena is a mild sedative which has been used to reduce anxiety and tension. Headaches associated with neck or upper back tension may find relief with a verbena tincture. Adrenaline stress - caused digestive disorders may be eased. Verbena is a reliable fever-reducer. It promotes diaphoresis (sweating). It also is a diuretic. It helps stimulate lactation after birth in women, and was sometimes used as an abortifacient in ancient times due to its modifying effect on the neurotransmitter dopamine and the hormone prolactin. For this reason, it should **not** be used during pregnancy.

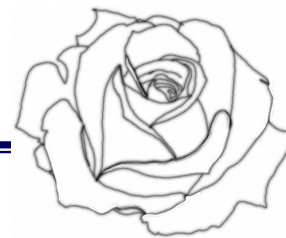
When collecting Verbena, gather the upper herbaceous portions of the plant. Snip the individual stems down to where several sets of leaves remain and lay out to dry. Take care, because some individuals may develop contact dermatitis from the leaves. And always alert your doctor, as Verbena may interfere with other medication, specifically it may inhibit cytochrome P450.

Whether you drink it in a tea or liqueur, partake of it in a tincture, or enjoy watching hummingbirds and butterflies flutter around it, Verbena is a delightful little perennial, low-maintenance, hot summer flower.

Kris Williams, RPh, Master Gardener



Cochise County Master
Gardener Newsletter Editor
Carolyn Gruenhagen



Donna Blackburn, Dedicated Master Gardener

It is with heartfelt sadness that we bring the news of Donna Blackburn's passing from this life. Donna passed away peacefully in the early morning of August 15 after struggling with a recent health issue.

Our hurting hearts are with Cliff, Donna's dear, devoted husband of many years. Cliff has also been an important and engaged member of our Master Gardener family for as long as Donna has been. We are here to help and support him in any way possible.

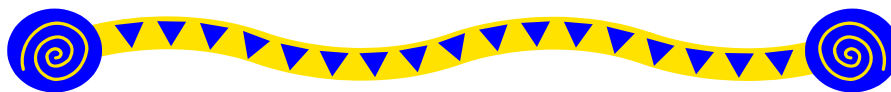
Donna, a 2007 Master Gardener graduate, served diligently as our Treasurer on our MG Board of Directors for the past seven years. She is being awarded Emeritus status in the Master Gardener program this year. Donna and Cliff have been extremely active with the Cochise County Master Gardener Association and the Board for many years, working on the High Desert Gardening & Landscaping Conference, manning our Master Gardener display booth at our local Farmers' Market each month, acting as cashiers for all fund-raising events, participating in all continuing education events, working as docents for the annual Xeriscape Garden Tour, . . . the list goes on.

Donna also served as Treasurer for the Sierra Vista Area Gardeners Club, and was active in other organizations throughout our community.

We have lost a dear friend to our organization. We feel an extreme personal loss as well. There are not enough "thank you's" to Donna and Cliff for all they have done.

We will work with Cliff to plan a Celebration of Donna's Life to be held in the Discovery Gardens at UA Sierra Vista at a later date.

Our prayers and loving thoughts of support continue for Cliff.



The 93rd Cochise County Fair will be held at the fairgrounds in Douglas, AZ on September 21—24. For information go to:

<https://cochisecountyfair.org/>