



The Virtual Gardener—A New Threat to Gardeners—Zika!

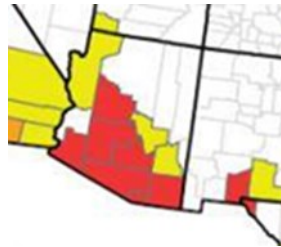
What is the most dangerous animal on the planet?

Some would say man himself, but many would say it is mosquitoes, specifically female mosquitoes of certain species. Over millennia, these tiny creatures have been responsible for more human deaths and misery than all the human beings who have ever lived. Collectively they have provided the vectors for over two dozen different diseases including two of the biggest killers, yellow fever and malaria. Malaria alone is estimated to infect over 200 million people worldwide and kill half a million each year.

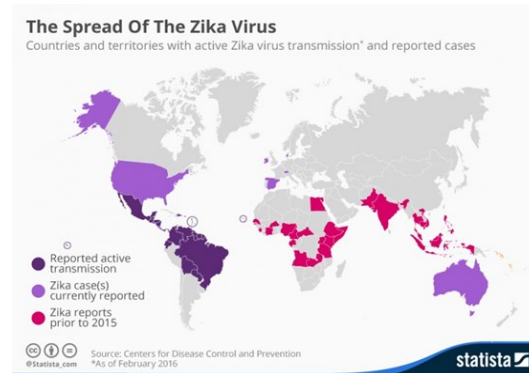
Not all mosquitoes are threats—only those that have evolved two important characteristics. First, the females must ingest blood in order to produce fertile eggs and second, they must have a tolerance to pathogens collected from the blood of an infected bite victim. These two characteristics allow the female mosquito to act as a passive agent, the vector, transferring a pathogen from the blood of an infected member to the blood of an uninfected member of a population that can host a pathogen.

Until recently the main threat from mosquitoes in Arizona was West Nile virus carried by two species of mosquitoes found in the state: *Culex tarsalis* and *Culex*

quinquefasciatus. Now another mosquito found in Arizona, *Aedes aegypti*, has the potential to transmit another serious disease, the Zika virus. This map taken from a [CDC report](#) shows the presence of this mosquito in Arizona counties.



The Zika virus is named after the Zika Forest in Uganda where it was first discovered infecting a rhesus monkey in 1947. The first human case was identified in Nigeria two decades later. Since then it has spread to at least two dozen countries across the globe as shown on the following [map](#)



(Continued on Page 2)

Inside this issue:

July Reminders	2
SW Gas Project of Love	3
Cuttings 'N' Clippings	3
Love Confession: Dahlias	4
MG Class Graduates	4
At a Glance Box	5
New Mexico Locust	5
Cochise County Fair Info	6



COLLEGE OF AGRICULTURE AND LIFE SCIENCES
COOPERATIVE EXTENSION
Cochise County

[Cochise County Cooperative Extension](#)
www.cals.arizona.edu/cochise/mg/

1140 N. Colombo, Sierra Vista, AZ 85635
(520) 458-8278, Ext. 2141

450 S. Haskell, Willcox, AZ 85643
(520) 384-3594

(Continued from page 1)

In March of this year, the first person infected with the Zika virus in Arizona was identified in Maricopa County. By June the number of cases in Arizona had risen to six, all travelers recently returned from a Zika-infected area. So far, no cases originating in Arizona have been identified and no *A. aegypti* mosquitoes infected with the virus have been found in the state. The danger is that a traveler infected with the virus—even if asymptomatic—could be bitten by an uninfected *A. aegypti* mosquito here in the state and pass the virus into the local mosquito population. To complicate matters even more, it has been discovered that the virus can be transferred between humans through sexual contact. The contagious period lasts up to three weeks.

The Zika virus causes no symptoms in about 80 percent of infected people and only mild symptoms—wide-spread rash, pink eye, muscle pain, joint pain, and headache—in others. In a small number of cases victims develop Guillain-Barré syndrome (GBS), a serious autoimmune disease that can lead to paralysis. But of course the greatest threat is to the unborn. About 13 percent of pregnant women infected with the virus produce babies with congenital problems, especially microcephaly. The microcephaly resulting from the Zika virus is so severe that some physicians think it deserves its own name to distinguish it from the milder forms usually seen.

The *A. aegypti* mosquitoes that provide the vector for the Zika

virus in Arizona have different characteristics from the *Culex* mosquitoes that carry West Nile virus. This means we have to employ different strategies to protect ourselves from them. Unlike their *Culex* cousins, the *Aedes* mosquitoes are more frequently found indoors. The *Culex* mosquitoes are morning and evening feeders while the *Aedes* mosquitoes are daytime feeders. Another characteristic that makes the *Aedes* more difficult to combat is their egg-laying habits. The *Culex* lay eggs in “rafts” in standing water and their eggs cannot survive outside water. The *Aedes* mosquitoes deposit eggs singly at the edge of standing water and after a short period of development, the eggs are capable of surviving for long periods of time in a dehydrated state before being rehydrated and hatching. This means that the *Aedes* eggs can hatch at irregular intervals over a long period of time unlike the *Culex* eggs that hatch all at once.

So how can we protect ourselves from Zika-carrying *Aedes aegypti* mosquitoes?



As always, the first step is to eliminate or treat standing water wherever possible. Standing water can be treated with larvicidal mosquito dunks or mineral oil. That’s easy. Eliminating all standing water is difficult to impossible, especially during the summer rainy season. Mosquitoes evolved to take advantage of the tiniest puddles, even those accumulating on leaves and in blossoms. In the case of *Aedes* mosquitoes, indoor

sources of water such as toilets and moist sinks and shower stalls have been found to harbor their eggs. Vigilance is critical.

Keeping mosquitoes out of the house is also difficult. Window and door screens are important but not a total solution. Mosquitoes enter the house riding on pets and people or fly in when a door is opened. Once they are inside the house, they can be killed the old-fashioned way...by swatting...which is more effective in raising your blood pressure than killing the insects or by using insecticide sprays formulated for flying insects. The mosquitoes must come in contact with the suspended aerosol to be killed, so its effects are only temporary.

Limiting your time out of doors during the day is another way of limiting the threat, although that’s not the kind of advice gardeners want to hear. Alternatively, wear loose clothing (mosquitoes can bite through tight-fitting clothes) that covers as much of your skin as possible and use an insect repellent on all exposed skin. *Consumer Reports* [April 2016] magazine recently tested insect repellents for effectiveness and published the results. They found that the most effective repellents contained high concentrations (up to 30 percent) of DEET or another synthetic chemical, picaridin, so check the labels before you buy. They found that these repellents can be effective for up to 7 hours.

Until next time, happy surfing!

Gary Gruenhagen, Master Gardener
virtualgardener@cox.net

Watch for these Upcoming Features in Future Newsletters

- ~ In recognition of Southwest Wings, August. 3, *Inviting Birds into Your Back Yard* plus ACE coupon!
- ~ New 20,000 gallon rainwater harvesting tank installed on UA Campus
- ~ Fodder being grown and fed to 50 horses at Horsenaround Rescue

Gardening Reminders

- ◆ Keep the pests under control
- ◆ You can still plant something
- ◆ Keep watering!

Southwest Gas Group Gives Project of Love to Discovery Gardens

A few months back, The Honorable Hank Huisking, Sierra Vista City Councilwoman, graciously invited me to speak with her Rotary Club about the Discovery Gardens on the U of A Sierra Vista campus, their purpose, and the developmental activities going on. Little did we know the delightful surprise that would spring forth a few days later.

The following week I received a phone call from Julie Phipps, District Manager at Southwest Gas Corporation in Sierra Vista, who is also a member of the Rotary Club to which I had spoken. She said that she had an employee volunteer group who selects a project in the community each year that they can begin and complete on a Saturday morning, and that she and her group would like to tour the beginnings of our Discovery Gardens for consideration of their annual project.

In preparation for their visit, a list of project ideas was developed such as laying decorative gravels and top-dressing mulches in the gardens, building decorative fencing for our future Children's Garden, and installing trellises and vines around the utility structures to the west of the Gardens. But when Julie and her group arrived, I recognized this was an energetic, dedicated group that meant business about "giving." I wanted to offer a project idea that would start with a relatively "clean pallet," and complete with something that this wonderful group could say, "Wow! Look what we did!"—something that would really make a difference.

Several years ago, Cado Daily, former Water Wise Program Coordinator, planted a 20' X 20' patch of Buffalo Grass as a demonstration of a warm-weather, drought

tolerant grass that would perform well in our high desert climate. Behind this patch sat a beautiful old Hackberry tree (*Celtis reticulata*) with three *Salvia greggii* planted beneath, and a gravel path between the grass and the tree. I looked at this area and thought, "Let's give this grass and tree some real purpose," and show homeowners what they can do with a small backyard. A plan was developed and presented to Julie and her group. They enthusiastically said "Yes!" Supplies were gathered and a date was set. What happened next was something I will never, ever forget.

On Saturday, May 21, at 6:45 in the morning, big, white trucks with the proud Southwest Gas logos, arrived at the Discovery Gardens. Seventeen, yes, seventeen of the most energetic, ambitious, enthusiastic folks I've ever seen jumped out of the trucks and began working like a hyper-motion, well-oiled machine on a great multitude of different projects on our little Back Yard Display. By 11:30, they had transformed the area to create a darling, magnificent back yard demonstration with a "desert cottage garden" personality. They gave a gift of great personality to that section of the Discovery Gardens. More importantly, it is a community project of which this group of fine folks should be forever proud!

This group is known as Sierra Vista's Blue, or more lovingly as The Blue Crew. Here's what they did: they laid a flagstone path in what was formerly a pea gravel path, laid compost and then planted Creeping Thyme among the flagstones, installed a decorative metal fence around the perimeter of the entire area and planted vines on several panels, installed arbors at each end of the flagstone path, planted

flowering vines on both arbors, added several different species of salvia to the already existing *Salvia greggii* under the Hackberry tree to create a full Salvia Garden, built two stone raised beds in front of the grass patch to create cottage garden flower beds, welded "cattle panels" to two poles of the adjacent metal shade structure to create a vertical wall for vertical gardens, planted large vines on each of the four metal poles of this shade structure, planted a peach tree in a half wine barrel with flowers, and to top it off, Julie Phipps was on a ladder for the entire morning, painting the Herbarium building!! It was magic! All this in just 4 ½ hours!

These folks were incredible and left us with a treasure! Come by any time to see their gift to the Discovery Gardens.

Jan Groth, Master Gardener Program Coordinator

Cuttings 'N' Clippings

✿ For more information on the Cochise County Master Gardeners, go to the web site at:

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

or contact Valerie at:

valeriedavidson@email.arizona.edu

You can also follow them on Facebook at: [www.Facebook.com/](http://www.Facebook.com/CochiseCountyMasterGardeners)

[CochiseCountyMasterGardeners](http://www.Facebook.com/CochiseCountyMasterGardeners)

✿ Join Water Wise on a guided tour of local rainwater harvesting sites on **July 8—Time: 8:00 to 11:00 AM** Pre-tour Talk: University of Arizona South with tour to follow. The pre-

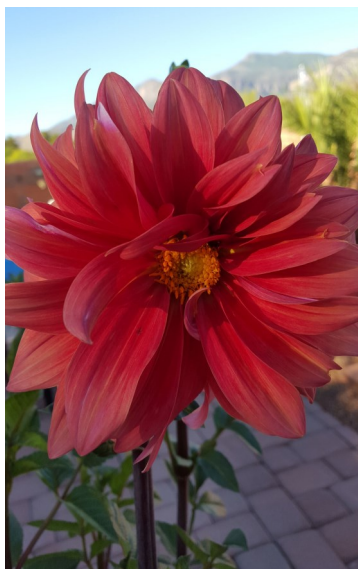
(Continued on page 6)

True Confessions: My Long-term Love Affair With Dahlias

I met my first dahlia many years ago while traveling in the Pacific Northwest, that misty land of fog and fern. It was in Shore Acres State Park, 13 miles outside of Coos Bay, Oregon. There are 5 acres of formal gardens on the property, started in the 1900's by sailor and early pioneer, Louis J. Simpson. Ah, the dahlias! I was immediately entranced! I walked right by the rest of the exotics to gaze in wonder at this delicate, sensual flower. For years after that, all other flowers faded in importance to my memories of the dahlia. I also found dahlias in the famous Butchart Gardens in Victoria, B.C. on Vancouver Island, —55 acres of formal gardens with a Summertime Dahlia Walk. Oh, how the dahlias dazzled my eyes. I was in love.

Many years later, as a recent transplant to the high desert, and as a newly minted Master Gardener, I was perusing one of the local nurseries, and much to my amazement, I found dahlia bulbs! After researching, I found that the dahlia, a member of the *Asteraceae dicotyledonous* family, is a native of Mexico, my neighbor only 20 miles away. My secret love is practically a native!

Dahlias are the medium-water, low-maintenance, flashy star-of-the-show of the garden. Ranging from 3'-8' in height, the dahlia is a tuberous perennial, and will increase in height and flower circumference each year. It is related to the sunflower, the daisy, chrysanthemum, and zinnia. The shorter varieties of dahlias will be only biennials or annuals, with smaller flowers and can be planted in borders and containers. But some varieties of dahlia can be dinner-plate size. The larger varieties can be used in summer hedges and



screens, and there is even a tree variety. And what a show the dahlia puts on each summer! The dahlia

expresses elegance, inner strength, creativity, change, and dignity, in addition to Las Vegas flash.

The dahlia will take full-day sun, but would prefer late afternoon shade in hotter areas, however, I have always grown mine in full sun, watering more often in the hottest weather. They come in many flower forms and all the colors except blue. There are formal tightly petaled forms, wild 'cactus' forms, balls, pompoms, and single petaled forms. They produce long-lasting, striking cut flowers

The tubers should be planted in the spring to produce that summer. It is possible to find potted plants in the big box stores now. In cooler climates, it is best to dig up the tubers after the tops become yellow and store in dry sand in a cool, dry place overwinter. That said, I have left mine in the ground for 5 years with no problems. Dahlias like soils high in phosphates and low in nitrogen.

Now that my secret love is out, as a gardener, I find the best way to express my love of dahlias is to share. I hope that by sharing my story with you, I have inspired you to join in me in my obsession.

Reference: *Sunset Western Garden Book*
Kris Williams, Associate Master Gardener

Another Fabulous Master Gardener Class Graduates!

Our 2016 Master Gardener Class graduated on Wednesday, May 18. This sounds redundant, but we had another absolutely wonderful class this year! How do we get so lucky to have such great folks in this program?! We gathered in the Public Meeting Room with yummy food provided by Chris and his catering group from Cochise College. We handed out shirts and certificates and gave each graduate an opportunity to speak so that all other attendees could get to know them a bit.

And speaking of attendees . . . several of our active Master Gardeners attended the event for our new graduates. The tables were full! We are so grateful for their enthusiastic support of our new folks. It was terrific to see everybody there.

This is an energetic, dedicated group of new grads. Most of them jumped right into doing volunteer hours shortly after this year's class began by working on the Discovery Gardens, the High Desert Conference, and the Spring Plant Sale. And they continue to stay active. They're already committing to working for the Xeriscape Tour and the Fall Plant Sale. Many are already very close to completing their 50 hours! See what I mean? Dedicated group!

I do miss seeing these faces every Wednesday morning: Susie Allard-Tipling, Deborah Avery-Hargrove, Randy Baker, James Cain, Fred Cleere, Sheila DeVoeHeidman, Deb DiBiasie, JoAnne Ehasz, Robin Eversage, Joe Jacinto, Mary Jackson, Matt Macoviak, Nadine Parkhurst, Mary Renfro, Steve Stockmar, Evie Van de Bogart, Gail Westmoreland, Kris Williams, Mark Woods, Rita Yauger, and Kathy Youngblood.

And to brag further, new grad, Kathy Youngblood, has been voted to be our new Cochise County Mas-

(Continued on page 6)

At a Glance Box

It's a Bloomin' Cochise County Native Plant of the Month

Plant: New Mexico Locust, *Robinia neomexicana*

Description: Shrub or small tree

Blooms: Light pink, typical pea flowers in clusters beginning in April

Use: Soil stabilizer and ornamental

Learn more: Cochise County Herbarium, www.cochisecountyherbarium.org or [SEINet](#)

For an in-depth article, see below.

Virginia Bealer, Guest Author
Herbarium volunteer



New Mexico Locust

Dense clusters of fragrant pink flowers hanging from shrubs or trees along streams and in coniferous forests catch our eye from



late April into July. The banner, wings, and keels of the flowers identify them as typical pea flowers, in the Papilionoideae subfamily of *Fabaceae*. New Mexico locust, *Robinia neomexicana*, might more properly be named southwestern locust, since it's widespread across the southwestern states and northern Mexico. This is Arizona's only species of locust, though three others are native to central and eastern U.S. —*R. hispida* (bristly locust), *R. viscosa* (clammy locust), and *R. pseudoacacia* (black locust).

Vespasian Robin, botanist to King Henry IV of France, is the source of this plant's genus name. He first cultivated *R. pseudoacacia* in Europe, where it has become a favorite in gardens with sandy soils in southern England. Our *R. neomexicana* rates a paragraph in the *Western Garden Book*, so it can be useful as an ornamental or soil stabilizer, though is not appropriate in small spaces since it sprouts from stumps and roots and forms thickets. On the other hand, as a legume, its roots harbor nitrogen-fixing bacteria that enrich soil.

The common name of "locust" was mistakenly applied to this genus apparently by early missionaries in America, who confused it with the Egyptian acacia because of its pinnately compound leaves and leguminous fruits like those that provided John the Baptist with "locusts", a word that could refer to an insect or to a fruit that resembled the insect. New Mexico locust

leaves have 15 to 21 oval leaflets up to 1 ½" long. The flowers are slightly shorter, up to ¾" in length, and the legume, studded with red, bristly hairs, is about 4 ½" long at maturity. Flower color is usually pink, though some plants produce white ones as in the photo taken in Garden Canyon on Ft. Huachuca. Altitudinal range for this plant is between 4,000 and 8,000'.

Though beautiful to behold when flowering, New Mexico locust is best admired only visually. Stems are liberally armed at the bases of branches with stout, sharp thorns up to an inch long. Leaves can be irritating to children and susceptible adults and the seeds are toxic to humans. However, Native Americans are reported to have used an extract of the plant as an emetic and treatment for rheumatism. The dense wood makes stems and branches suitable for fence posts. Native Americans

(Continued on page 6)

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Jeffrey C. Silvertooth, Associate Dean & Director, Economic Development & Extension, College of Agriculture and Life Sciences, The University of Arizona. The University of Arizona is an equal opportunity, affirmative action institution. The University does not discriminate on the basis of race, color, religion, sex, national origin, age, disability, veteran status, or sexual orientation in its programs and activities. The information given herein is supplied with the understanding that no discrimination is intended and no endorsement by Cooperative Extension is implied. Any products, services, or organizations that are mentioned, shown, or indirectly implied in this publication do not imply endorsement by the University of Arizona.

(Graduates continued from page 4)

ter Gardener Association (CCMGA) Vice-President. And, new grads, Deborah Avery-Hargrove and Mary Jackson have both voiced their interest in serving on the CCMGA Board as Members-At-Large.

Speaking of the Board, Julie Barton, a 2015 MG graduate and active Master Gardener, has been enthusiastically voted to be our new Master Gardener President. We all look so forward to working with Julie. She brings diverse experience from her many years as a Master Gardener leader from Wyoming. We'll talk more about Julie, our new Board, 2016 awards, and plans for this coming year in next month's MG Newsletter.

Again, many congratulations to our new 2016 Master Gardener Graduates and big thanks for all that this class has already given to the program!

Jan Groth, Master Gardener Program Coordinator

The U of A Water Wise Program (520) 458-8278, Ext. 2141

(Cuttings 'N' Clippings continued from page 3)
sender will be Sandra Hurlbut, UA Water Wise Program. **Registration Required!** *(If transportation is provided, a fee may be requested.)*

Check out the Water Wise web site to see what else is happening in 2016 at:

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

* The Cochise Chapter of the Arizona Native Plant Society's next monthly program will be held in September. Field trips may be held this summer. For information follow them on their web site:

<http://www.aznps.com/chapters/cochise.php>

or Facebook:

<https://www.facebook.com/AZNPSCochise/>

(New Mexico Locust continued from page 5)

used the wood to make hunting and fishing equipment.

If you can't find *R. neomexicana* in a plant nursery, try growing them from seeds. Collect seeds from unopened pods, which are mature from August to December. Soak the seeds in 100° F water for 24 hours before planting them singly in pots. Plant outdoors the following summer.

Pollinators for New Mexico locust include native bees, honeybees and hummingbirds. Mule deer, big-horn sheep, porcupines and chipmunks utilize the legumes. Larvae of the golden-banded skipper and funeral duskywing feed on the foliage.

*Virginia Bealer, Guest Author
Herbarium volunteer/Photographer*



Cochise County Fair Coming!

The Cochise County Fair will be held on September 22—25 at the fair grounds in Douglas, AZ. Plan now to enter any one of the many categories. The Premium Book is available at this [link](#).



What is that Plant?

“What is that Plant?” ID service is available to the public by Herbarium volunteers. If you are wondering what that naturally growing or naturalized plant is, getting an identification is easy. All you need to do is visit the Cochise County Herbarium website: www.cochisecountyherbarium.org and click on the Plant IDs tab to learn how!

or Ask a Master Gardener

Cochise County Master Gardeners are available to answer your gardening questions either by telephone call to the Cooperative Extension Office or on-line on our web site at:

<http://ag.arizona.edu/cochise/mg/question.htm>



Cochise County Master Gardener Newsletter Editor
Carolyn Gruenhagen